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# Manufacturers Record

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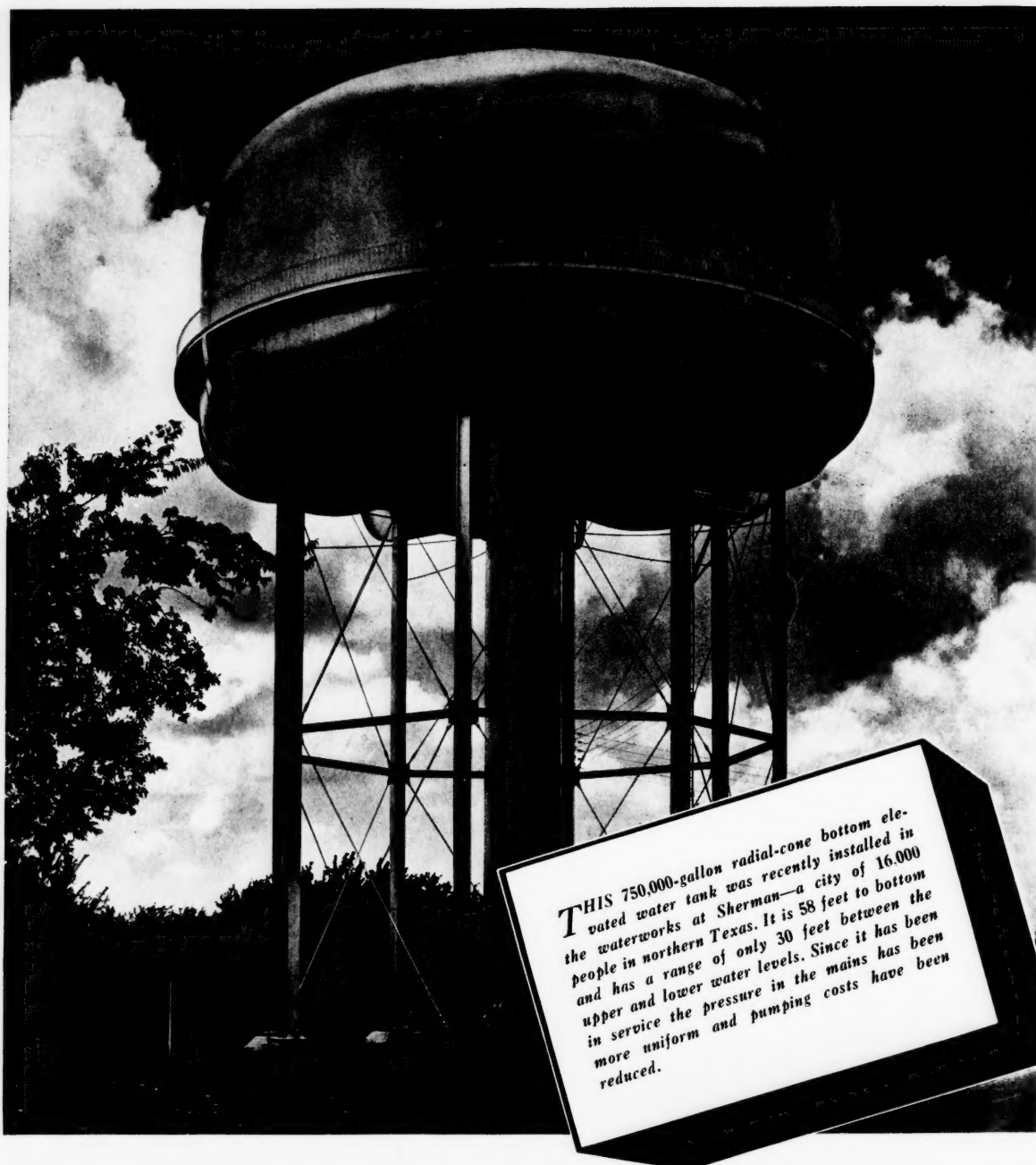
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September, 1939

See page 29



## The TREND to Large Elevated Storage

Forty years ago elevated steel tanks were being installed in rapidly increasing numbers in small municipal waterworks systems to provide uniform gravity pressure. It has only been during the last

decade or so, however, that waterworks engineers have realized that elevated storage is equally or more important in larger cities. Now-a-days it is not uncommon to see one or more tanks of from

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Plants in BIRMINGHAM, CHICAGO and GREENVILLE, PA.

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COVER—View of the S. S. America just previous to launching on August 31, 1939 at Newport News, Va.

### MANUFACTURERS RECORD

Devoted to the Upbuilding of the Nation Through the Development of the South and Southwest as the Nation's Greatest Material Asset

Published Monthly by the  
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FRANK GOULD, President

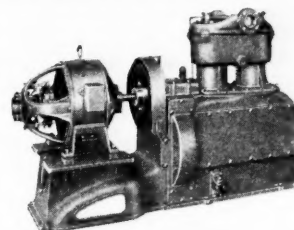
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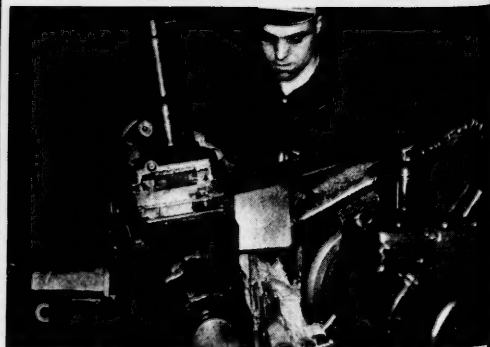
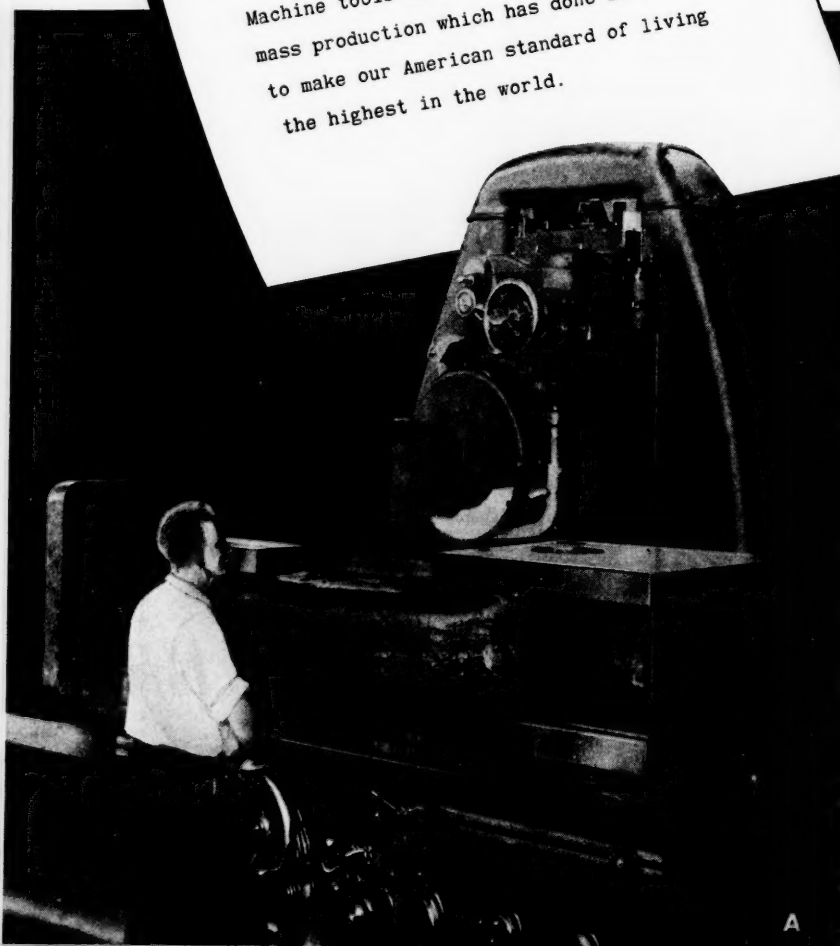


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## A GOVERNMENT AUDIT

**A**MONG various investigations recently ordered by Congress there is one of outstanding importance. Prompted by a resolution of Senator Byrd it is expected to go thoroughly into the affairs of the many government bureaus and agencies established in recent years and reveal figures not heretofore available on expenditures, the amounts of money loaned and with balance sheets brought up to date. Assets will be appraised, profit and loss statements prepared and operations brought under the light of proper accounting methods.

The large number of agencies set up to carry out a wide range of New Deal objectives have had vast power in lending and spending upon which it appears there has been no check and no adequate accounting has been made. Inquiries by Senator Byrd and others have repeatedly failed to elicit necessary information about outlays running into hundreds of millions and even billions of dollars. Clearly a matter of concern to the nation's taxpayers.

It is expected that this investigation will, for the first time, disclose the actual situation existing in Government financial affairs.

Some time ago an appraisal of the Commodity Credit Corporation showed as of March 1, 1938, that its capital of \$100,000,000 was impaired to the extent of about \$94,000,000. This was restored

by Congress. Another appraisal at the end of March, 1939, showed an impairment of another \$119,000,000. New Deal bookkeeping has before this been a matter of doubt to those charged with the responsibility of approving drafts for funds.

When the recent spending bill was up before Congress it was proposed that it should operate "outside" the budget. The suggestion was not altogether surprising as it has been impossible, even for those responsible among government officials, to know what was actually going on "inside" the budget because of unchecked operations of dozens of agencies, little and big, with huge appropriations at their command.

The Treasury Department under Senator Byrd's resolution will be able to inform the country as to what has been going on, and the facts will be revealing, if not shocking, in some instances. They should show why the country is facing a tax bill that will mount higher before it is reduced and make it possible to judge if results have justified a program that called for colossal spending without limit.

Congressional investigations by reason of partisan politics too often in the past have dodged issues, and instead of getting fundamental facts on which to base judgment, used the occasion to smear private industry. This investigation is likely to be something different.

## Give Them A Chance

Gainesville, Fla.

Editor

MANUFACTURERS RECORD.

Here is an opportunity to render a great service to the boys of Florida if you will give publicity to the enclosed clipping and cause manufacturers who can give employment to these bright boys by starting factories to make anything that would require industrious, in telligent labor at reasonable price.

Thanking you in advance for anything done for these boys.

August 15, 1939

C. F. Smith.

### Over One Thousand Students Seeking Part-time Jobs at the University

University of Florida officials said Saturday that hundreds of young men continued to ask the question, "What can I get to do to help earn my way through the University?"

Opening of the state University's regular 1939-40 session may be less than five weeks away, but University mail continues heavy daily, and each day brings prospective students to the campus in quest of part-time jobs.

Dean of Students R. C. Beaty, who heads the self-help committee, said more than 1,000 applications for work had been filed by old and new students.

Officials in the registrar's office stated advance applications for admission were higher than in previous years. It is believed that the freshman class will range between 900 and 1,000.

The MANUFACTURERS RECORD is glad of the opportunity to publish the above letter and newspaper clipping which tells of the need of part-time jobs by a thousand Florida youths to help them in their effort to obtain an education.

Boys and girls who are willing to work in order that they may learn are not taking the easy way—they are taking the hard way and they deserve every encouragement in their quest.

Built upon such fiber and character, America has developed.

We are sometimes inclined to question whether parents are in all cases wise in their insistence that children, without regard to temperament or fitness, shall attend higher institutions of learning when in some cases it would be far wiser to have them learn a trade. It is obvious to those engaged in productive enterprise that the dearth of skilled labor is growing more acute under present conditions, but where the children themselves manifest an eagerness to learn and are willing to work to acquire an education such as the university gives, there is nothing to be said save they deserve what they want and the opportunity should be available. They are not asking for a life of ease, nor a government hand-out, nor more hours of leisure. They

are asking for work in order that they may learn.

In the present instance we believe a way will be found, and Florida and its university may be proud that its freshman class will be formed of material that will reflect credit upon the state and the country.

## The Governor of West Virginia Speaks to Labor

West Virginia is a state of varied resources and natural wealth. Its coal mines, forests, natural gas, oil, steel mills, and factories are contributing splendidly to the wealth of the country. Labor in West Virginia has been an important part of that State's economy, more so than in other states where coal mining has not yielded the returns which nature made possible from West Virginia's mountains. More of the State's labor is employed in mining than in any other industry, and when labor unrest affects that industry it affects the entire state and in turn, industries of other states which are dependent upon West Virginia for their fuel supplies.

There has come to our notice a copy of an address delivered by Homer A. Holt, Governor of West Virginia, before the West Virginia Federation of Labor at Wheeling last month which contains many striking points. The American philosophy set forth is so applicable to union workers in every line of endeavor that we are reprinting some of the paragraphs the speech contains. It is to be regretted that space will not permit printing the entire address.

Governor Holt spoke to his audience as American citizens and in simple terms emphasized the duties of citizenship as coming first and that the duties of union membership are by no means incompatible with the duties of citizenship, but on the contrary are complementary to the first and higher duty. His warning of the ultimate effect of leadership that uses labor as a political threat was timely and his conclusions indisputable.

\* \* \* \*

### EXTRACTS FROM GOVERNOR HOLT'S ADDRESS BEFORE WEST VIRGINIA FEDERATION OF LABOR

I believe that the organization of labor has even greater opportunities for constructive service in the future. But, I believe also that the future usefulness of the organization of labor must depend upon labor's choice of methods and means.

\* \* \* \*

Labor is conscious of its great political power.

It is proper that those who toil, because of their large numbers if for no other reason, should have great influence in a popular government. For its own preservation, however, that influence should be exercised in a manner calculated to preserve the

influence and to promote sound democratic principles which history thus far would seem to demonstrate to be indispensable to its existence.

\* \* \* \*

There is a marked tendency today for some of those who speak in the name of labor to endeavor to use the power of labor's large numbers to regulate by law everything except their own activities, and to assert that labor has a right to be exempt from the operation of the most simple and fundamental laws applicable to all people. Some who would speak for labor seem to want to regulate by law all others but to declare labor to be free from all legal restraint, even to the point of defiance of laws of general application.

\* \* \* \*

While the numbers of labor are large, let us remember that in any government or civilization no party or group is so large as to exclude the existence of minority interests or so small as to be indivisible itself. A part of the majority of today may well be a part of the minority of tomorrow. The only safeguard that has yet been devised against the arbitrary rule of minorities has been sound, democratic constitutional government in which basic rights of citizens are safeguarded for majorities and minorities alike.

\* \* \* \*

Many labor leaders vaunt the political influence of labor. Labor does have great political influence, but that does not mean that the majority of those in the ranks of labor are willing to use that influence to sustain lawless activities of some who purport to speak for them. Labor wants, expects, and demands orderly government, just as does any other element of our population. If stock be taken of the results of some of the most recent elections, it is easy to be seen that the administrations which tolerated the defiance of law by some of those acting in the name of labor did not receive a vote of popular confidence, but were rejected by an aroused citizenry. Many who toil joined in the purge of those who failed to distinguish between the unlawful activities of some so-called labor leaders and the silent will of those for whom they purported to speak, but who, in fact, did not approve of such activities.

\* \* \* \*

Our political and economic reforms in a democracy come through public opinion. Public opinion in this nation does not sustain violence in the name of labor. In these times of unemployment, public opinion does not sustain widespread strikes for jurisdictional matters not involving considerations material to the individual workers.

A strike to force all workmen of a plant or industry to join a union or a particular union, when there are no points of difference between the employers and the employees, does not enlist public

sympathy.

The organization of labor must proceed along voluntary and peaceful lines and methods if it is to serve the useful ends which constitute its opportunity. Organized labor cannot hope for success in democratic America by the substitution of coercion for consent, or by resort to any other totalitarian methods.

When some who would speak for labor seek to make undemocratic uses of governmental processes, difficulties will certainly arise.

\* \* \* \*

Labor organizations will never exercise that constructive influence which should be theirs unless they are willing and able to meet the responsibilities which are inseparable from the rights and interests asserted. No one questions the abstract right of an organization to call a strike, but, just because that organization operates in the name of labor, it has no right to strike if to do so is in violation of an agreement previously made. A labor organization has no right to demand recognition as a bargaining agency unless it is able and willing to assume the responsibility of carrying out the bargain when made.

\* \* \* \*

The work of those for whom employment is available is necessary to make possible the modest governmental provision for those for whom no work can be found. No organization has the right to call upon men to abandon their work and then call upon the government to provide for their needs during their voluntary idleness.

\* \* \* \*

Some groups of labor in America have permitted their ranks to become infiltrated with un-American influences which are incompatible with basic principles and the fullest measure of success of the republic, and, likewise, are incompatible with the true cause of organized labor which is dependent upon democratic principles for its service and success.

\* \* \* \*

The future of organized labor in America is in your hands. If labor wills to enjoy the liberty and respect which have been its in the past, let it discard un-American practices and hearken to some of the basic virtues of democracy—truth, justice, tolerance, orderly living, and respect for law. In order to do this, some house-cleaning may be necessary.

If labor believes in and wants democratic government, then let it adhere to democratic methods.

If some of those who speak in the name of labor believe that they cannot operate successfully on the principles of the American democracy—truth, justice, tolerance, orderly living, and the respect for law—then let them prepare for the most excoriating judgment that has ever been pronounced at the bar of public opinion of democratic America.



# WEST VIRGINIA

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AND  
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STONE  
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TIMBER  
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SITES  
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POWER  
PUBLIC AND  
PRIVATE  
COOPERATION  
TRANSPOR-  
TATION

IN WEST VIRGINIA there are combinations of advantages for many kinds of industries that can not be matched anywhere.

MANUFACTURERS have become chemistry-conscious and, as a result, laboratories are working diligently, searching for new by-products and ways of meeting increasing demands. Many new industries are in an embryo state and must find adequate reserves and suitable locations.

COAL, NATURAL GAS AND BRINE are important raw materials used in the manufacture of many industrial and pharmaceutical products. West Virginia has vast reserves of these and other raw materials, easily accessible to railroad, river and highway transportation facilities.

WEST VIRGINIA is destined to become the chemical manufacturing center of the world. Many plants are most modern and efficient, conforming to the world's latest engineering standards. Some of the industries are the largest of their kind.

*Are you seeking an ideal industrial location?*

THE VARIOUS STATE AGENCIES WILL GLADLY ASSIST MANUFACTURERS WITH INFORMATION ON THE STATE'S RAW MATERIALS, POWER RESOURCES, FUELS, LABOR, TRANSPORTATION FACILITIES AND RELATED ITEMS FOR ANY SPECIFIC INDUSTRY. PLEASE COMMUNICATE WITH

**WEST VIRGINIA PUBLICITY COMMISSION**

THE STATE CAPITOL, CHARLESTON, WEST VIRGINIA

# West Virginia's Mineral Resources Offer Opportunities for Industry

**W**EST VIRGINIA, which formed a part of Virginia and was included in the original Colony of Virginia, broke away from Virginia when it seceded in 1861. Starting with a convention of delegates from twenty-six counties at Wheeling in June 1861, a constitution was drafted the same year and ratified in April 1862. On June 19, 1863, West Virginia was admitted to statehood in the Union.

Which white people were the first to set foot on West Virginia soil is not known but presumably it was some of the early settlers crossing into Ohio early in the eighteenth century. The first structure is believed to have been the log cabin of Morgan Morgan erected in 1727 in what is now Berkeley County. Thereafter the settlement of the area got under way but it was a slow process for the mountains were a serious barrier.

Originally settled in large part by pioneers from Maryland and Pennsylvania, West Virginia's population, estimated at 1,849,000 in 1937, is predominantly American with over 96 per cent of native origin.

West Virginia ranks 27th in population and 40th in size with 24,170 square miles.

## Climate

**A**LTHOUGH the physical conditions of West Virginia cause the climate to be varied, it is nevertheless genial and conducive to good health. The temperature, which averages 53.2 Fah., is moderate even in winter and uncomfortable hot spells are virtually unknown. The rainfall is ample and well distributed with an average of 45.05 inches. This latter however has a fairly wide range of 38 to 60 inches, the heaviest occurring in June-July and the smallest in November.

## Transportation

**W**EST VIRGINIA, which is within 350 miles of nearly half the nation's population, is well supplied with transportation facilities. The railroads, operating a total of more than 4,000 miles, occupy an important position because of the state's preponderance of heavy commodities. Nine class I railway companies provide an extensive and adequate service for passengers and freight.

The total West Virginia road mileage totals almost 33,000 miles. Of this amount, over 4,760 miles are primary roads and include 1,610 miles of hard surface; 2,222 miles of bituminous surface, 520 miles of stone or gravel, 165 miles of graded and drained, and 243 miles are unimproved. The 28,210 miles of secondary roads comprise 323 miles of hard surface, 1,315 miles of bituminous surface, 4,773 miles of stone or gravel, 6,864 miles of soil, and the balance are unimproved. Operating on this network of highways are more than 600 busses and over 45,000 motor and tractor trucks to supply the people and industries of West Virginia with ample freight and passenger transport.

Augmenting the railroads and highways are numerous navigable waterways including the Ohio river which traverses a major part of the state's western boundary. Finally, West Virginia also is served by commercial air lines.

## Manufactures and Finance

**T**HE value of West Virginia's manufactured products in 1937 was \$480,526,030, an increase of \$113,951,963 or almost 31 per cent over the 1935 amount.

Outstanding among the state's industries is that of chemicals with products in 1937 valued at \$58,267,326. A close second was glass manufacturing with products valued at \$52,954,985. Other important industries separately listed in the census reports with their respective value of products include: clay and pottery products including porcelain, \$17,378,509; sheet, structural and ornamental metalwork, foundry, stamped and pressed metal products, \$16,677,277; electric and other machinery including machine shop products, \$15,852,412; lumber, timber and planing mill products, \$13,706,209; petroleum refining, \$11,607,878; coke oven products, \$11,101,503; tanned, curried and finished leather, \$9,683,163. Altogether the census report lists 52 separate industries of three or more establishments and of these 33 have an annual production value exceeding one million dollars. However, in addition there are 115 other plants whose combined products were valued at \$199,852,482 in 1937.

The cost of materials, fuel, electric energy and containers used in manufacturing was \$257,751,612 and the 83,464 wage earners employed in 1,057 establishments had a combined payroll totaling \$102,511,473.

The aggregate resources of the 184 West Virginia banks reporting to the Comptroller of the Currency on June 30, 1938, amounted to \$331,886,000 of which individual deposits comprised \$279,688,000. Capital stock of these banks including capital notes and debentures was \$27,794,000. Bank transactions as represented by reporting clearing house exchanges totaled \$255,098,000 in 1938 while internal revenue collections in the same period amounted to \$24,022,700 of which \$8,900,301 were corporation income tax receipts.

## Agriculture

**A**LTHOUGH nearly 72 per cent of West Virginia's population is classified as rural, the farm population comprises only 26 per cent. Furthermore, of the state's entire area the aggregate crop acreage in 1938 was only slightly over 6 per cent and amounted to 1,479,400 acres. From this farm crop acreage was derived a cash income of \$9,887,000 which together with \$28,364,000 from livestock and livestock products formed the major part of the state's cash farm income totaling \$39,687,000.

The total number of livestock in West Virginia in 1938 was 1,468,000 valued at \$38,869,000 of which the largest part was 606,000 cattle valued at \$21,597,000 including 251,000 cows and heifers kept for milk and valued at \$11,295,000. Sheep numbering 536,000 with a value of \$2,911,000, 217,000 swine worth \$1,834,000, 97,000 horses valued at \$11,135,000, and 12,000 mules valued at \$1,392,000 make up the balance of livestock. Cash farm income from dairy produce in 1938 totaled \$15,940,000 including \$9,700,000 from milk and \$5,145,000 from eggs.

Among the more important crops of 1938 with their respective quantities were: corn, 12,640,000 bushels; wheat, 2,340,000 bushels; oats, 1,806,000 bushels; tobacco, 3,190,000 pounds; and apples, 4,800,000 bushels.

## Timber

OF West Virginia's 8,960,000 acres of forest land, which is considerably more than half the state's entire area, 8,860,000 acres are described as commercial forest.

The major part of the state's forest land is the cordwood area amounting to 3,985,000 acres containing 1,020,000 cords of softwood and 13,100,000 cords of hardwood or a total 14,200,000 cords. However, from the point of view of quantity, the largest cordwood volume is on saw timber areas and comprises 1,600,000 cords of softwood and 19,900,000 cords of hardwood—21,500,000 cords, or a grand total of 35,625,000 cords exclusive of a small quantity on restocking areas.

The saw timber areas of 2,660,000 acres including 665,000 acres old growth and 1,995,000 acres second growth support a stand of 8,850,000,000 board feet. Softwoods, with 600,000,000 board feet old growth and 500,000,000 board feet second growth, total 1,100,000,000 board feet while hardwoods totaling 7,750,000,000 board feet include 2,580,000,000 board feet old growth and 5,170,000,000 board feet second growth.

Wage earners engaged in West Virginia's 141 lumber industry establishments numbered 5,538 in 1937 and produced products valued at \$11,829,085. Included among these products were 294,272,000 board feet hardwood lumber and 58,325,000 board feet softwood or a total lumber sawed of 352,597,000 board feet.

## Mining and Minerals

THE annual value of West Virginia's mineral production is exceeded by only three other states, but in relation to the state's general economy it is the most important factor. Coal, which is the principal mineral, consists of several seams, one of them alone constituting the most valuable single mineral deposit known anywhere in the world. Every kind of bituminous coal is found in West Virginia and its production exceeds that of any other state. Yet coal reserves of a commercial character have been conservatively estimated at far more than one hundred billion tons. As a source of employment, coal with over 100,000 wage earners has no competitor and far outranks the 83,464 wage earners of all manufacturing in West Virginia. With a total mineable area equal to approximately 37,524 square miles underlying 17,280 square miles of the state, West Virginia's coal and coal by-products together with other minerals offer unusual opportunities for industrial development.

On the accompanying map is shown those minerals now being commercially produced. In addition, there are other deposits of these and other minerals in West Virginia which may possibly in some instances offer commercial possibilities. Numerous deposits of limonite and hematite are known and several have been mined in the immediate past. Bromine has been manufactured from brine in two different counties to date. Clay for brick and stoneware as well as fire clay is available extensively in numerous counties. Dolomite, grahamite, grindstone, pulpstone, salt, siderite and slate all occur in quantity and have been mined in a greater or lesser degree at one time or another. Limestone for building, as crushed stone, as a flux, and for agricultural purposes is found in large quantities throughout the state.

Sand for building and molding is available in numerous localities but the sand of most importance is glass sand. Large quantities of an excellent quality of this sand occur in many counties.

West Virginia sandstone suitable for every purpose can be found throughout the state.

Petroleum has been produced over a long period in large quantities, but in recent years production has been steadily declining. However, there is possibility that new methods and deeper wells will increase production; meanwhile the extensive oil shales offer potentialities against the time of oil exhaustion.

Though natural gas is usually associated with petroleum, in many counties of West Virginia it is found alone. At present the

state ranks high in production and the future appears even more optimistic particularly in the Oriskany sands while other opportunities for development are regarded as distinctly possible in deeper sands. The average heating value of natural gas in West Virginia is about 1,100 B. T. U.

## Electric Power

PRODUCTION of electricity by private and public plants in West Virginia during 1938 amounted to 2,495,776,000 kilowatt hours. Of this sum, 2,045,512,000 kilowatt hours were produced by fuel operated plants and 450,264,000 kilowatt hours originated in hydro electric plants.

The total generating capacity of the state's 39 plants operated by 16 companies was 673,378 kilowatts at the close of 1938. Making up this total were 18 steam plants capable of developing 567,510 kilowatts, 10 water power plants with a generating capacity of 100,880 kilowatts, 8 internal combustion engine plants having a capacity of 4,427 kilowatts, and three combination plants with a total capacity of 561 kilowatts.

## Taxation

DOMESTIC corporations of West Virginia are required to pay annually a franchise tax based upon capital stock starting from \$20 on \$5,000 or less with \$10 increases up to \$100 on \$100,000. Exceeding that sum there are additional increases up to \$150 on \$200,000. Beyond \$200,000 and not more than \$1,000,000 the tax is \$180 plus 20 cents on each \$1,000 in excess of \$200,000; in excess of \$1,000,000 and not more than \$15,000,000 the tax is \$340 plus 15 cents on each \$1,000 in excess of \$1,000,000. For corporations with stock greater than \$15,000,000 there is a flat tax of \$2,500. Shares of stock having no par value are presumed for the purposes of assessment to be at \$25 unless it was originally issued for a greater consideration. Foreign corporations are taxed on the same basis plus 50 per cent of the tax with an annual minimum of \$150.

There is no state corporation income tax but there is a gross sales tax of \$1.30 on each \$100 of coal; \$3.90 on blast furnace slag, sand, gravel or other mineral products not mined or quarried; \$7.80 on natural gas with \$5,000 annual deduction; \$1.95 on limestone or sandstone and timber; other natural resource products, \$2.60; and manufactured products \$0.39.

County and local tax rates on money, notes, bonds, bills and accounts receivable, stocks and other similar intangible personal property range from 28.25 cents to 95.25 cents per \$100. All other property falling within the purview of local taxation is taxed at rates of three and four times that of intangible property.

## Labor and Wages

ALTHOUGH West Virginia has ten cities exceeding ten thousand population each, including Charleston with 62,265, Huntington with 75,572, and Wheeling with 61,659, and the population density is 72 per square mile, the urban population comprises only 28.4 per cent. Only one of the state's 55 counties supports no manufacturing establishments.

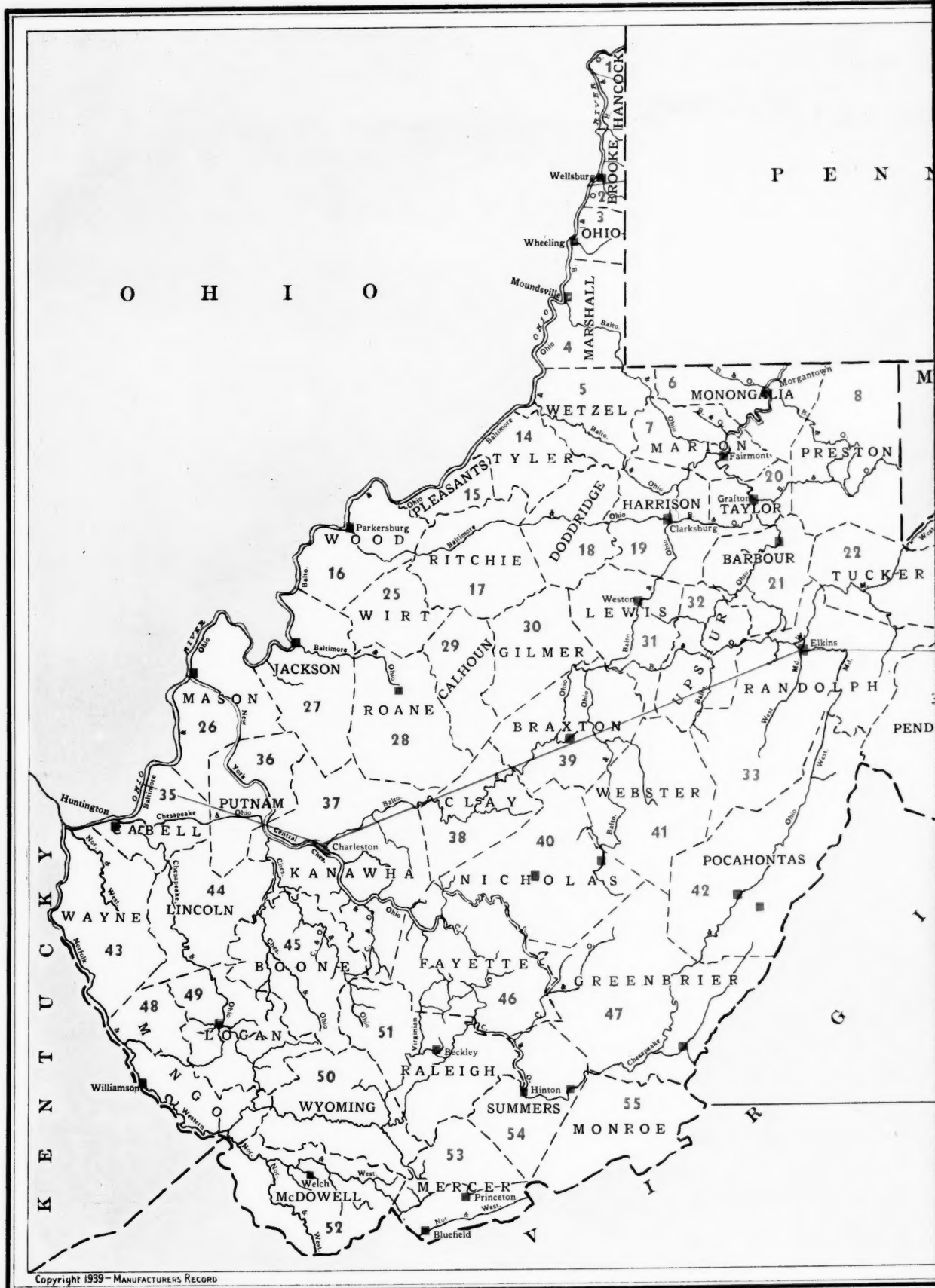
Of the white population comprising 93.3 per cent of the whole, 90.6 per cent are of native parentage; those of foreign parentage are only 4.1 per cent and the foreign born only 3.2 per cent.

A plentiful supply of loyal, intelligent and willing labor is available in all industries to supply a reasonable demand. As of recent date, the annual average wage rates covering all classes of labor for the several basic industries together with the average number of days operated is as follows: building and construction, \$1,237.50 and 284 days; chemical and allied products \$1,528.77 and 307 days; clay, stone, etc., \$1,243.35 and 255 days; coal, \$1,285 and 188 days; food products, \$1,265.22 and 311 days; glass, \$1,354.34 and 253 days; iron and steel, \$1,443.63 and 282 days; lumber and allied products, \$984.07 and 274 days; petroleum, \$1,577.19 and 323 days; public utilities, \$1,406.53 and 352 days.

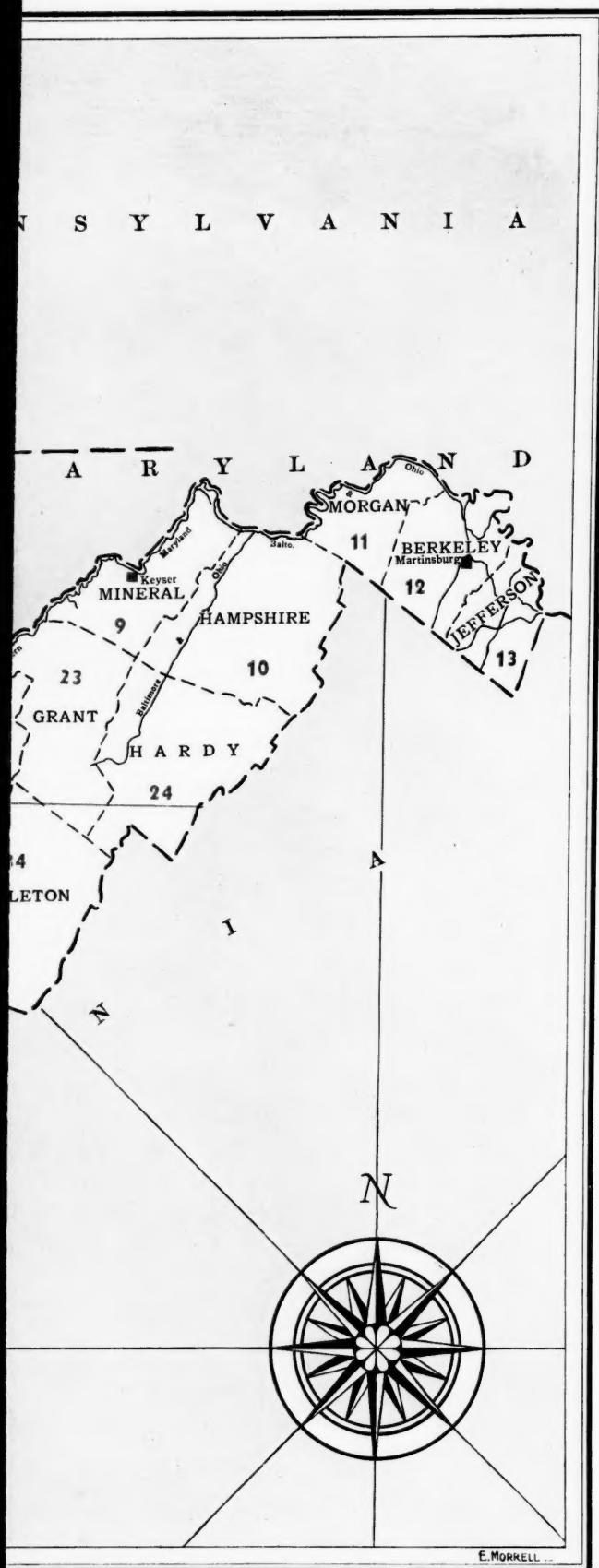












# West Virginia

Its principal raw materials and transportation facilities, with facts on the reverse side pertaining to its industrial growth and opportunities for industry.

## MINERAL

### COUNTIES IN WHICH MINERAL IS COMMERCIALY PRODUCED

- Clay—1, 7, 12, 16,  
19, 20, 31, 32, 35, 37, 53
- Coal—1, 2, 3, 4, 6, 7, 8, 9, 19, 20, 21, 22, 23, 26,  
31, 32, 33, 36, 37, 38, 39, 40, 41, 43, 44, 45, 46,  
47, 48, 49, 50, 51, 52, 53
- Gas—4, 5, 6, 7, 14, 15, 17, 18, 19, 25, 26, 27, 28, 29,  
30, 31, 32, 35, 36, 37, 38, 39, 43, 44, 45, 48, 49
- Glass sand—11
- Limestone—6, 8, 10, 11, 12, 13, 19, 22, 23, 24, 33, 34,  
47, 53, 54
- Manganese—47, 55
- Oil—2, 6, 14, 15, 16, 17, 18, 25, 28, 29, 30, 31, 35, 43,  
44, 45
- Sand and gravel—2, 3, 4, 5, 10, 16

## TIMBER

- Oak—all counties
- Beech-birch-maple—all counties
- Red Spruce—7, 8, 19, 20, 21, 22, 23, 24, 29, 30, 31,  
32, 33, 34, 40, 41, 42, 45, 46, 47, 49, 50, 51, 52,  
53, 54, 55

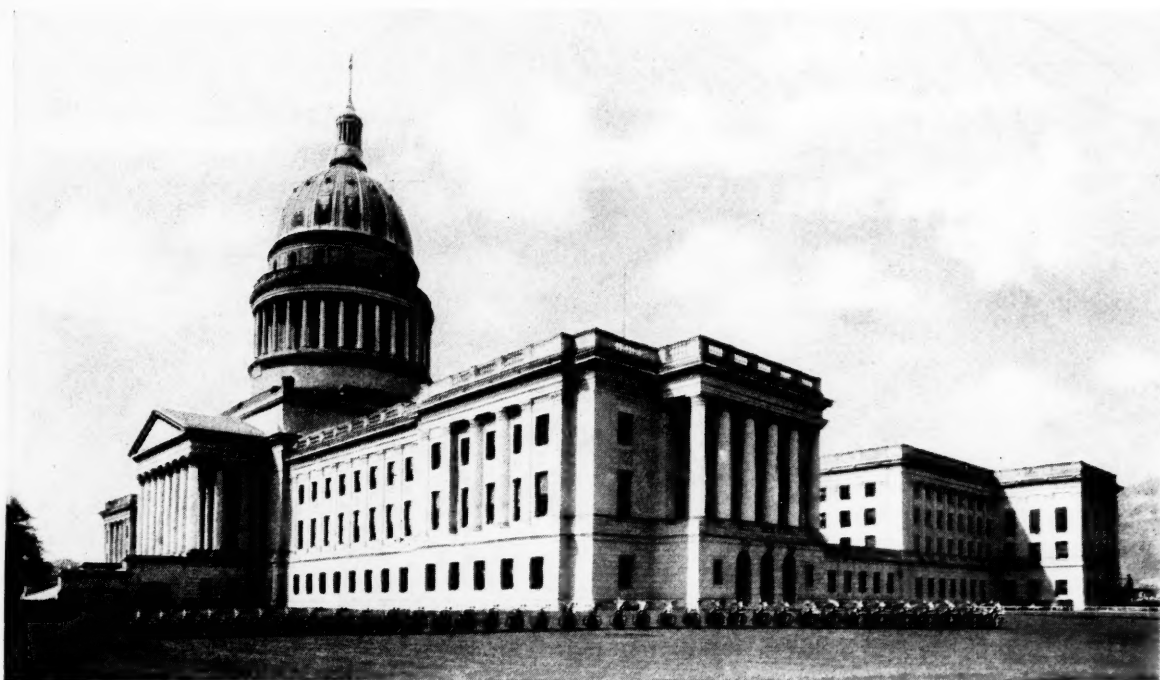
## AGRICULTURAL PRODUCTS

- Corn—all counties
- Tobacco—16, 18, 25, 26, 27, 28, 29, 35, 36, 37, 40, 43,  
44, 45, 49, 50
- Soy beans—small quantity in almost every county
- Sweetpotatoes—16, 17, 26, 27, 28, 29, 30, 32, 35, 36,  
37, 38, 39, 40, 43, 44, 45, 46, 48, 49, 50, 51, 52,  
54, 55

Natural gas is available for consumption in the following counties: 1, 2, 3, 4, 5, 6, 7, 8, 9, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, 43, 44, 45, 46, 48, 49, 50, 51, 53

- Railroads
- Navigable Rivers
- Airlines

■ Airports—also at principal cities printed in red



**WEST VIRGINIA'S STATE CAPITOL**

This modern structure rests on 100,000,000,000 tons of coal accessible within a 2-hour motor drive from its stately dome.

# *America's Coal Bin*

**THE SYMBOL OF THE NATION'S  
CONTINUED INDUSTRIAL SUPREMACY**

**W**EST VIRGINIA, leading all other American states since 1931 in the production of bituminous coal, has a reserve of 150,000,000,000 tons of unmined coal, according to estimates of learned geologists. This huge coal reserve, of the purest quality and excellence found on the American continent, is the symbol of America's continued supremacy in industry, trade and commerce.

Coal mining is the basic industry of West Virginia. More than 100,000 miners, in the employ of 360 commercial coal companies, produce 100,000,000 tons annually of bituminous coal, or 27% of the national production, and it is shipped to more than 30 American states to giant industries and to domestic consumers to give warmth to palace and humble homes.

Coal mine workers in West Virginia draw wages of approximately \$150,000,000 per year. One-third of the state's population is dependent directly on coal. Related industries, such as transportation, trade, utilities and commerce, employ another 100,000 people, indirectly dependent on coal. Each year West Virginia coal provides in excess of \$200,000,000 in freight operating revenues to railroad carriers for transporting the commodity to far-

flung markets. Vessels on the Great Lakes and ships on the sea carry this product to distant ports.

West Virginia has an area of 24,282 square miles and 17,280 square miles are underlaid with coal. It is found in 49 of the 55 counties in 102 coal seams, more than half of which may be mined commercially.

*If all the coal in West Virginia were loaded into 50-ton gondolas, it would make a solid train encircling the earth 600 times!*

The enormous annual payroll of the coal industry in West Virginia, turned over and over again, moves into the markets of the Nation to buy commodities from other states. The industry spends 20c a ton, or \$20,000,000 annually, for supplies and equipment used in the production of this fuel. Coal provides a purchasing power far in excess of all other mineral fuel industries.

West Virginia coals vary sufficiently in physical character to meet every customer demand. These coals are carefully cleaned and prepared for distribution.

West Virginia is truly the Coal Bin of America, the guarantee of the Creator of an illimitable source of energy for centuries to come.

**WEST VIRGINIA COAL ASSOCIATION  
CHARLESTON---WEST VIRGINIA**

*Two Hands...*  
with but a single purpose



**to aid industry**

The Ceredo-Kenova W. Va. Chamber of Commerce and the First National Bank of Ceredo, W. Va., work hand in hand to encourage and develop industry in this valley . . . . The advantages of a large industrial center are available to manufacturers including two trunk line railroads . . . . cheap fuel . . . . low power rates . . . . ample school facilities . . . . native born labor . . . . river terminal connections with complete flood wall protection and exceptional banking advantages through The First National in Ceredo . . . . We invite inquiries and welcome the opportunity to serve industry.



**THE FIRST NATIONAL BANK OF CEREDO ·  
· CEREDO-KENOVA CHAMBER OF COMMERCE**





# THE UPPER MONONGAHELA VALLEY OF WEST VIRGINIA HAS:

An abundance of natural resources, such as coal, oil, natural gas, clays, sands, limestone, brines, and an ample supply of pure soft water,

An intelligent supply of male and female labor located in small communities with ideal facilities for development,

Quick and easy access to large centers of population and to the nation's markets,

Practically unlimited electric power at rates among the lowest in the country.

*We invite your serious consideration to the ten counties in northern West Virginia bordering the Monongahela river and its tributaries.*

## UPPER MONONGAHELA VALLEY ASSOCIATION

HEADQUARTERS, FAIRMONT, WEST VIRGINIA,

*with units in each of the ten counties.*

(This Association will be glad to furnish information on the industrial, agricultural, recreational, educational and other advantages of this area.)

### U. S. Exports of Lumber and Logs Show Some Increase in First Seven Months of Year: Imports Up Sharply

An 11 percent increase in exports and a 40 percent rise in imports characterized the foreign trade of the United States in lumber and logs during the first seven months of 1939 as compared with the corresponding period of last year, according to the Forest Products Division, Department of Commerce.

Aggregate exports of hardwood and softwood lumber, (including boards, planks, scantlings, flooring and sawed timber) and logs during the January-July period of 1939 totaled 700,496 M feet against 639,655 M feet in the first seven months of last year.

Of the 1939 exports, sawn material accounted for 617,599 M feet compared with 555,746 M feet in 1938, a gain of 11 percent, while exports of logs and hewn timber totaled 82,897 M feet against 83,909 M feet, a decrease of 1 percent. Sawn softwood exports amounted to 542,979 M feet in the 1939 period compared with 412,935 M feet for 1938, and sawn hardwoods, (including flooring) totaled 164,620 M feet against 142,811 M feet. Exports of softwood logs amounted to 67,278 M feet as compared with 69,075 M feet during the seven months of 1938, while the respective hardwood log exports were 15,619 M feet and 14,834 M feet.

United States imports of hardwood and softwood logs and lumber (including clapboards and cabinet woods) totaled 492,894 M feet in the first seven months of the current year compared with 352,420 M feet in the corresponding 1938 period. In the softwood lumber group, spruce was the most important species imported, totaling 135,101 M feet in the seven month period compared with 95,303 M feet in 1938. Imports of fir and hemlock combined amounted to 111,473 M feet compared with 88,865 M feet in the seven months period of 1938, and of pine 48,914 M feet against 24,505 M feet.

## in West Virginia it's HUNTINGTON

*The Jewel City of the Ohio Valley*

### WHERE

Coal is plentiful  
Natural Gas is cheap  
Labor is 98.5% American  
3 Trunk Railways center  
Housing is adequate  
Natural Resources are near

*for complete information ask*

**THE CHAMBER of COMMERCE**  
**HUNTINGTON, WEST VA.**

## New Market Data Handbook

A new guidebook for American businessmen, the "Industrial Market Data Handbook," containing vital information for establishing new sales territories, production quotas and marketing campaigns, is now available for distribution according to the U. S. Department of Commerce.

The handbook, first of its kind ever published, contains complete figures on industrial production, employment, value of products, cost of material, fuel and power, and output per wage earner for each of the 3,070 counties in the United States, and similar data for every city

of more than 10,000 population. The figures in the handbook pertain to 1935, the latest year in which information in this form is available.

In announcing the publication of the handbook it is pointed out that the study is especially designed to aid sales and advertising executives in estimating sizes and locations of their markets together with the potential value of these markets.

The data contained in the handbook have been carefully selected with the aid of many marketing executives and offers the most complete assembly of statistical data dealing with the size and location of American industrial markets now available to American business. Information

in the handbook is useful for establishing new sales territories or reappraising old ones, for setting up sales and production quotas, planning sales and advertising campaigns, and deciding on channels of distribution likely to be most profitable to the manufacturer.

Included is a tabulation of the county locations of 169,111 manufacturing plants by kinds of industry. Parallel tables covering the mining industry with a county location table for each of the 23,000 mines by type of mine are also given.

Operation summaries showing the number of firms engaged, cost of material, fuel and power, value of products and the number of wage earners are included on a national basis for each of the 280 industries covered.

The publication also contains information dealing with channels of distribution and manufacturing operation costs, as well as a key table on wholesale operation in a number of heavy industries.

Copies of the "Industrial Market Data Handbook" may be obtained from the Superintendent of Documents, Washington, D. C., or any District Office of the Bureau of Foreign and Domestic Commerce located in principal centers of the United States. The price is \$2.50 per copy.



# COAL!

## "THE FIRST AND BEST SOURCE OF POWER"

**B**EFORE his death, Thomas Edison said: "The first and best source of power is coal . . . water power is a political issue not a business one."

The private power industry recognizes the economy of producing electricity from coal. It uses 42,000,000 tons of coal a year. Should this be replaced by water power, thousands of miners and railroad employees would be deprived of employment. Water power sites situated so as to be capable of economical utilization were largely developed by private companies years ago when the generation of electricity by coal cost many times what it costs today. Engineers are now able to assert that, on the average, water power can no longer compete with coal if all the costs of production are included in the cost of water power.

### APPALACHIAN ELECTRIC POWER COMPANY

## Business Men and Farmers to Meet in Alabama

The Committee on Agricultural Cooperation of the National Association of Manufacturers will hold its first southern meeting on September 21 and 22 at the Alabama Polytechnic Institute, in Auburn, Alabama. Mr. Warren W. Shoemaker, vice president of Armour and Company, Chicago, Illinois, is the chairman. This meeting is the sixth in a series of farmer-manufacturer conferences which have been held in various parts of the country.

This committee, a standing group of the N. A. M., has no farm program. Its sole aim is to bring about better understanding between the business men and the farmers of the nation by obtaining and publicizing impartial facts. Much interest has been shown in the middle west, the locale of most of the work to date.

John R. Booher, for 17 years advertising manager of The Cleveland Crane & Engineering Co., Wickliffe, Ohio, passed away August 15. He was 61 years of age.

Prior to his affiliation with The Cleveland Crane & Engineering Company, Mr. Booher had been connected with Luetkemeyer Co., Pittsburgh; Doubleday Hill Electric Co., Pittsburgh; Western Electric Co., Pittsburgh and Cleveland; and Cuyahoga Power & Construction Co., Cleveland.

# The America Launching an Important Step in New U. S. Merchant Marine

**Built in a Southern Yard with every new  
safety device, raw materials used come  
from nearly every State —  
Thousands given employment**

There have been reams written in the daily journals all over the country about the launching of the *America*, the largest and costliest merchant ship ever built in the United States. Much has been said about the significance of the event, in that it marks the beginning of the drive on the part of our country for maritime ascendancy. The increased employment caused by the gigantic luxury liner has come in for its share of attention, and the intricate details of the launching itself, from the hours and days of rehearsal and preparation down to the final springing of the launching trigger, have been recounted many times. But the magnet that drew thousands of people to the Newport News Shipbuilding and Dry Dock Company's yards had very little to do with the above. It was the all-too-brief spectacle of the trim yet immense vessel sliding down the ways for her first taste of salt water.

This is a sight that can only be described as thrilling, in the deepest sense of the word. The immense hull, towering with mammoth-like proportions over the spectators, hangs by what might be termed a slender thread. Suddenly, accompanied by the blast of a whistle, timbers creak and groan, a bottle of champagne flies out and shatters on the prow. The ship gains momentum as it travels down the greased runways, and the spray dashes out on either side as it strikes the water. In thirty seconds all is calm and quiet once again; the spectators have stopped their cheering, the whistles and sirens have silenced their harsh clamor, and the crowd, notables and yard hands alike, moves off to whatever its next immediate business happens to be, chatting cheerfully. The launching will by no means provide dinner table conversation for a month to come, but the half-minute of sheer glory and beauty presented at this, or any other launching will never be forgotten by any who have witnessed it.

**T**HE *America*, launched on Thursday, August 31st, at the yards of the Newport News Shipbuilding and Dry Dock Company, marks an important step in the Maritime Commission's drive to give the United States a bigger and better merchant marine. This vessel is the largest individual item in the \$1,250,000,000 program, which sets out to build no fewer than 500 ships in the next ten years, or an average of about a ship a week.

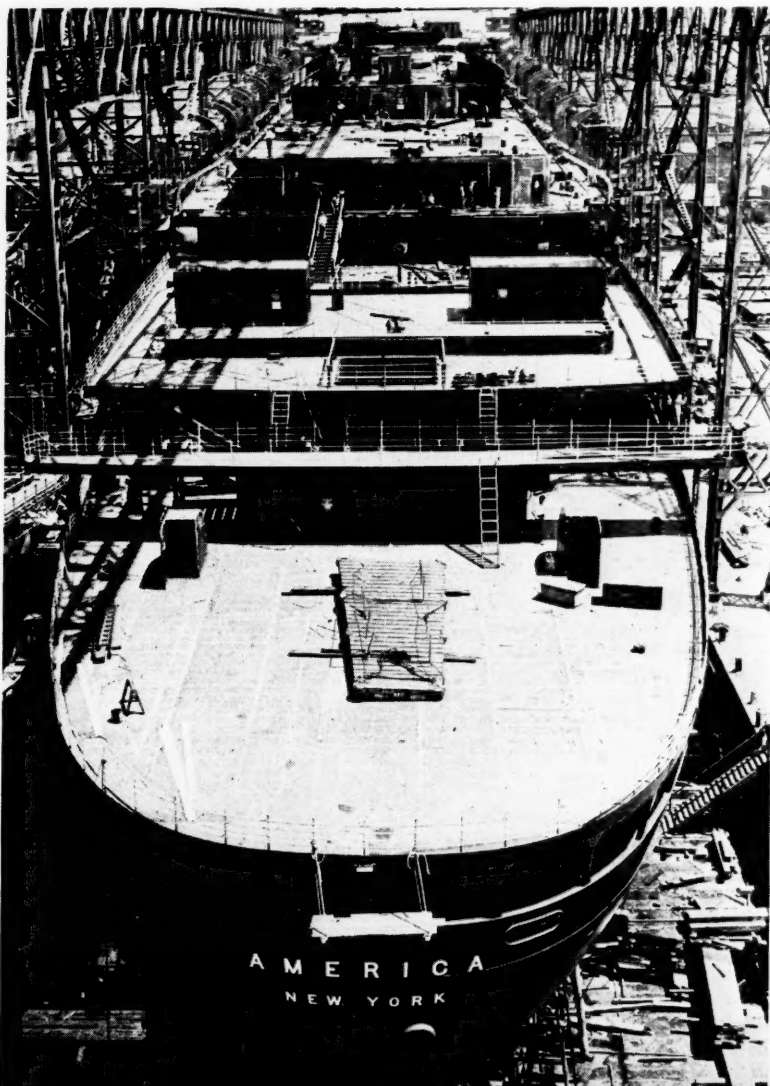
The ship itself cost about \$16,000,000,

and is a luxury liner in every sense of the word. It is 723 feet long, has a beam of 92 feet, and has a load-draft displacement of 34,000 tons. There are passenger accommodations for 1,209 persons, and there will be a crew of 639. There will be five elevators for passenger use, all of the dining rooms will be air conditioned, each of the staterooms in the cabin and tourist classes will have a private connecting bath, and there will be ample recreational facilities for those who

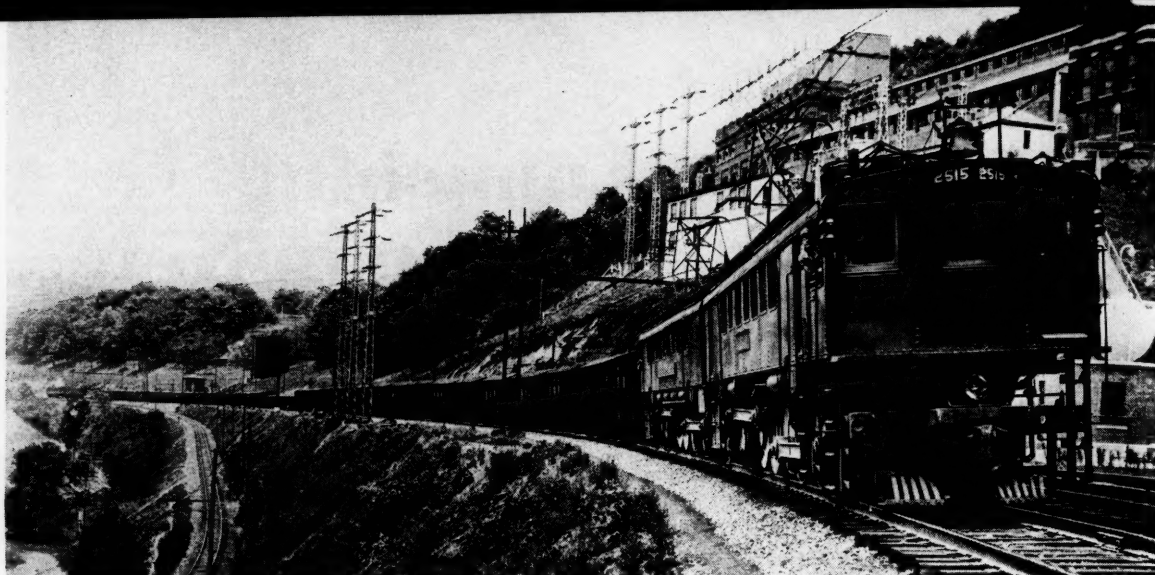
would engage in handball, swimming, and other less active sports.

The raw materials used in making the *America* have come from nearly every state in the Union. Approximately 1,275 American concerns have received orders for supplies and equipment for the vessel. An estimated 1,200 men will be employed on work for the *America* for 130 weeks, as well as 1,200 men in the yards

(Continued on page 58)







## Railroads Spend \$86,000,000 A Year In West Virginia

**W**HEN railway expenditures for fuel, materials, supplies, equipment, labor and taxes are added together, it is found that in 1937—a year of sub-normal railway activity—the railroads spent more than \$86,000,000 in West Virginia, and even this sum does not take into account payrolls and purchases of several small railroads in the State, nor does it include the expenditures of any railroad for numerous miscellaneous services and items such as payments to contractors, telephone and telegraph, electric light and power, water, office, building and land rentals, insurance and advertising. If all such omitted railway expenditures in the State were included, there is little doubt that the figure would be well in excess of \$90,000,000.

Industrial West Virginia is inseparably

linked with railway transportation. The economic well-being of every industry and every important business enterprise in the State depends in whole or in part upon the day-by-day service provided by the railroads. This is, of course, true of other states, but it is especially true of West Virginia because of the nature of the State's major resources. West Virginia is a producer of heavy bulk commodities—coal, iron and steel products, hardwood lumber and so on. These commodities require the type of mass transportation which only railroads are capable of rendering economically and efficiently.

Moreover, the railroads themselves represent one of West Virginia's major industries and the railway industry as a whole is one of the State's largest and most dependable customers.

As the nation's leading bituminous coal-producing state, West Virginia is one of the railroads' major sources of supply for locomotive fuel. In their more prosperous years the railroads of the United States have consumed more than one-fourth of the nation's output of bituminous coal. In the depression years they consumed more than one-fifth of the output. In every year they have drawn heavily upon the mines of West Virginia, and their purchases in the State run into many millions of dollars annually.

Railroads are purchasers of many other West Virginia products, their shopping list in the State including such items as crossties, hardwood lumber, poles, sand and gravel, crushed stone, track fastenings, bridge steel, steel pipe and fittings, steel rails, cement, asphalt, gasoline, petroleum products, hardware, tools, machinery, electrical fittings, car wheels, steel freight cars, and other equipment.

Altogether, eighty-one railway companies reported purchases totaling \$40,676,000 in West Virginia in 1937. In only six other states did the aggregate amount of railway expenditures for fuel, materials, supplies and equipment exceed that of West Virginia.

That every part of the State is engaged in supplying the railway industry is evidenced by the fact that one or more rail-

*(Continued on page 61)*



*Top—Modern, powerful electric locomotives haul thousands of tons of coal over steep mountain grades in West Virginia. Left—Adjustable loading booms carefully lower the clean sized coal into hopper cars at tippie of mine on the Norfolk & Western Railway.*

# Livestock—

## The Salvation Of

### Southern Farms

BY

**Dr. Milton P. Jarnagin.**  
Head Animal Husbandry Department  
University of Georgia, Athens, Ga.

**D**URING recent years the South has caught a new vision of prosperity, a vision akin to Henry Grady's, when he electrified the nation more than a half century ago with his thrilling prophecy of a prosperity which would come as a result of full barns, green pastures, and a reconstructed agriculture centered about the average farmer providing from the fullness of his own fields food for his table and feed for his livestock. It is the present day substitute for the antiquated and devastating one-crop system that has cursed the South so long—a diversified agriculture, herds and flocks, enriched fields, a higher standard of living, and a

happier and more hopeful rural population.

Physical evidence of a growing change in agricultural practices is the fact that in Georgia alone there are 7 packing houses operating under the Bureau of Animal Industry inspection which permits them to do interstate business. In addition to this there are 30 abattoirs with state inspection. All four of the major national packers have demonstrated their faith in the possibilities of the section by making substantial investments in processing plants. During recent years more than 50 live stock auctions have been established. The claim can no longer be made that there is no established market for live stock. There is hardly a farm in the state south of Atlanta that cannot convert its meat animals into cash daily within an hour's time. Competition for slaughter animals is so keen that farmers are assured fair



**In 1938 the South's  
Livestock Numbered  
62,461,000 Valued  
at \$1,546,683,000**

prices for all they produce.

Government reports indicate an astonishing growth of the meat packing industry in Georgia during the 5 year period from 1933 through 1937.

#### Value of Packing House Products in Georgia

Year	Number of Plants	Value of Products
1933	10	\$5,364,000
1935	13	13,477,000
1937	16 (Preliminary Report)	24,987,606

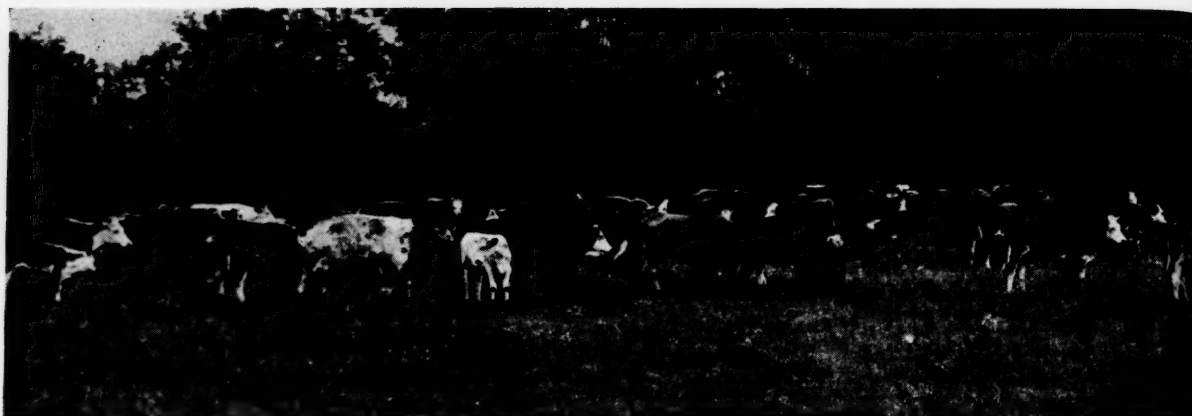
Truly an annual growth from a little more than \$5,000,000 to nearly \$25,000,000 in a 5 year period is encouraging. These figures do not include meats processed in many local abattoirs or animals slaughtered on farms for home use.

The progress in live stock development in Georgia is typical of what has been going on in the entire South since 1920. The following table compiled from figures supplied by the Bureau of Animal Industry is most convincing.

*Above—A grand prize winner of a Georgia livestock show in 1938. Below—A group of prize winning Georgia steers fitted and shown by future farmers of America, who are studying livestock production*







# ANIMALS SLAUGHTERED UNDER FEDERAL MEAT INSPECTION IN 13 SOUTHERN STATES\*

Year	Cattle	Calves	Sheep & Lambs	Swine	Total
1920 .....	871,639	426,829	195,866	1,583,957	3,078,291
1925 .....	1,021,764	690,128	139,305	1,911,283	3,762,480
1930 .....	723,975	559,553	341,331	2,037,845	3,662,664
1937 .....	1,460,715	792,146	932,452	2,517,907	5,703,220
Increase in 18 years ..	589,076	365,317	736,586	933,950	2,624,929
Percent of Increase ..	67.6%	85.6%	376.1%	59%	85.3%

\*Ga., Fla., Ky., Miss., N. C., S. C., Tenn., Va., Ala., La., Okla., Texas, Ariz.

The figures show that there has been an increase of 85.3% in the combined number of cattle, sheep and hogs slaughtered under federal inspection in the 13 Southern States.

In spite of this growth there are those who claim the industry is going backwards because the bare census figures show fewer animals on farms in many of the Southern States now than there were in 1900. This apparent contradiction is easily explained by the improvement in the quality and early maturity of the animals and changes in production methods and time of marketing. The

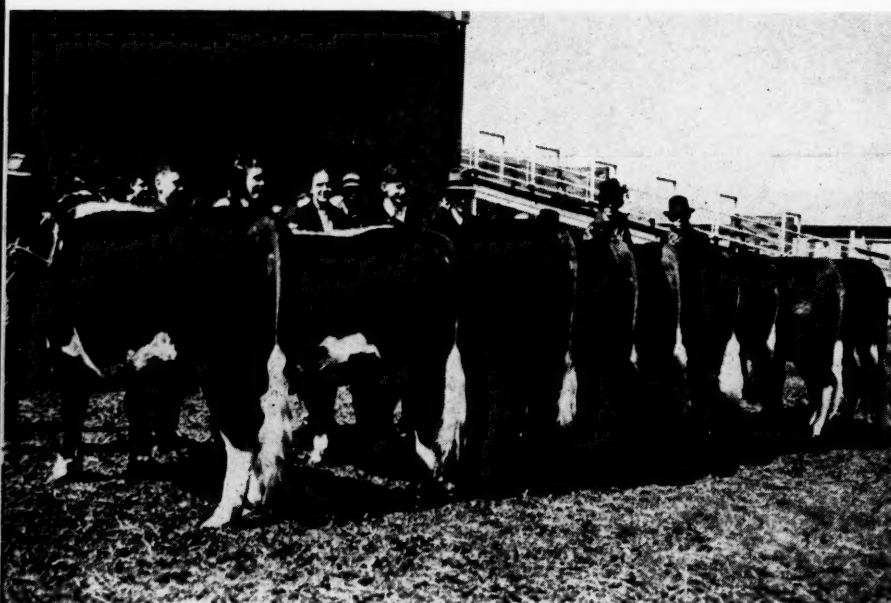
largest number of pigs are farrowed in late winter and early spring. These pigs go to the killers in the late fall or early winter. The census figures are taken as of January 1 so that these animals would escape the enumerators. The production of veal calves in the southeast is a comparatively new and rapidly growing industry. Most of the calves are dropped in February, March, and April. They come on the market in the late summer and early fall and are not enumerated. The more mature beef is coming on the market at much younger ages than formerly. Such improvement has been

made that animal population figures for the two periods are not comparable. The tonnage of finished packing house products is even greater than the increased number of animals slaughtered would indicate. Thousands of purebred bulls and boars have been placed in service and the mongrels and scrubs are rapidly disappearing. The quality of commercial animals coming on to the market each year shows substantial improvement.

In spite of the fact that cotton is the principal cash crop of Georgia, livestock has developed to the point where it is of greater value than cotton. In 1938 the total value of all cotton and cottonseed produced on Georgia farms was \$45,337,000. The gross value of livestock and livestock products, produced on Georgia farms, including that which was sold for cash and used on farms was \$73,078,000. Stated in the simplest terms: for each cotton dollar, there was a gross return from livestock of \$1.61. These facts are most heartening to those who believe that a new type of agriculture and prosperity is possible for the Southland. The surface has been but scratched.

The following statement from the Institute of American Meat Packers indicates that a continuation of growth in the livestock industry of the Southeast is to be expected:

"It is the history of the meat packing industry that its operations expand in those areas where livestock production expands. It is generally agreed that the recent expansion of the meat packing industry in the South has been due to the recent expansion of livestock production in that area. Increased production of livestock feed and of those types of livestock which are in greatest demand are the chief needs for expansion of the meat packing industry in the Southeastern States."



Above—Livestock grazing on a farm in south Georgia. Left—Portion of a prize car lot of steers at the Albany, Ga., fat stock show

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### Kind of Animals to Grow

Since Georgia is an area of under-production for all livestock and livestock products, any class of farm animals produced, including poultry, will find a waiting and unsatisfied market. Soil and climatic conditions are such that all such livestock can be grown at a profit. Dairy cattle, hogs and poultry are especially suited to a rather intensive type of farming. They require a large investment and high man labor demand per acre. The

be greatly expanded in the future. But for the general farmer who produces one or more cash crops, beef cattle have an especial appeal. They are especially suited to the needs of the large land owner, but this does not mean that the small farmer is debarred from participation. The average farm in Georgia is about 100 acres. On many of the smaller farms there is sufficient idle land for limited pastures and the production of feeds that can best be marketed through livestock. If a majority of these small farms would feed out 1 to 5 cattle each year it would double the tonnage of beef produced annually. A goodly number of these small farmers could add 1 to 5 brood sows with profits. From results obtained on the university farm it is quite certain that spring lambs can be produced profitably in many sections of the state.

Since horses and mules provide most of the power for farming, the production of work stock needed for replacement should be given careful consideration. During recent years the average horse and mule population of the state has been a little more than 350,000 head. With normal mortality, about 20,000 animals are required annually for replacement. At prevailing prices this means sending out of the state each year \$3,000,000 to \$4,000,000. This drain on the state's resources could be stopped by placing 1 to 4 brood mares on each farm. Substantial progress has been made in this direction during the past 5 years.

### Looking to the Future

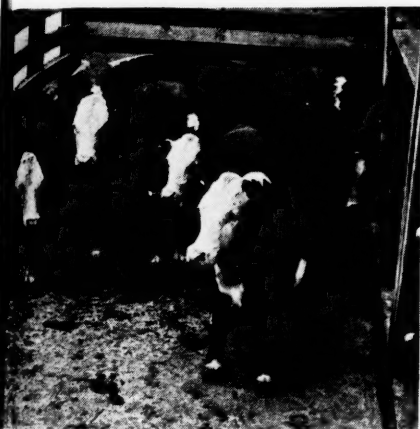
In planning for further development in Georgia there are certain fundamental facts that should be kept clearly in mind. The first and most important is that no livestock enterprise can succeed except in the presence of an abundance of low-cost home-grown feed. This item alone constituted from  $\frac{2}{3}$  to  $\frac{3}{4}$  of the cost of average livestock production. Improved permanent pastures are the very foundation of success. It costs 4 times as much to manger feed as it does to pasture feed cattle. There are approximately 37-

000,000 acres of land in Georgia. If the richest one-third were devoted to intensive cropping and the poorest one-third were set aside for forests there would be left around 12,500,000 acres to be devoted to permanent pastures. If such a land-use policy could be established the muddy streams of Georgia would again flow as clear as crystal, and soil erosion, the ruthless robber, would be forever driven from her borders.

Temporary grazing crops can do much towards reducing feed costs. A recent experiment conducted on the university farm is ample proof of this fact. The grazing crop was worth \$22.00 per acre in this experiment and hogs did the harvesting. The hogs that were finished on winter grazing crops gave a return of \$1.31 per bushel of corn consumed. Similar hogs finished in the dry lot gave a return of \$0.79 per bushel. In round numbers the feed cost per hundred-weight of gains on grazing was \$3.50 and in the dry lot \$5.00.

On account of the long growing season, high temperatures, and heavy rainfall, the South can grow more silage per acre than can be grown in most other sections. The negligible cost of the trench silo

*Turning cattle loose to graze on kudzu and similar crops has proved definitely profitable*



*Young livestock ready for market in south Georgia*

money returns are correspondingly high. To the man with limited acreage, the necessary training, experience, capital, and available labor, any or all of these enterprises will be attractive. On the other hand beef cattle are suited to a much more extensive type of agriculture. Through them many idle acres can be put to a profitable use with the minimum demand for capital and labor.

As civilization moved westward across the American continent the range cattle business was first developed. This was followed by beef cattle on farms and then came hogs, dairy cattle, and poultry on a commercial basis. A splendid start has been made in the development of all of these special enterprises, and they will





places silage within the reach of every ambitious stockman. Cottonseed meal is a surplus feed in the South, and is therefore available to the cotton belt farmer at a lower cost than it is to his competitor in growing livestock in outside territory.

The production of winter hay crops gives the southern stockman a decided advantage. Various mixtures of cereals and winter legumes produce hay of good quality and at a time the land would otherwise be bare. It comes off in time to grow a summer crop of hay on the same land. Corn yields average low in the South. However, on farms where livestock is fed and the manure is returned to the soil, yields invariably rise. The section can grow oats, and on the richer lands barley, as a substitute for corn. Such crops protect the land during the heaviest rainy season, and are not as highly competitive for man and mule labor as is corn.

### Breeding Stock

A large investment in foundation breeding stock is neither advisable nor necessary. The native female has much to commend her because of her heartiness and adaptation to the environment. Good purebred bulls mated with such cows will improve the calves in size, early maturity and fleshing quality as rapidly as the farmers can increase the available feed supply and improve the environment under which they are kept. Not more than 1 farmer out of each 100 needs purebred females. The principal function of the purebred breeder is to supply high quality sires to improve the average quality of the rank and file of grade animals.

*Above—Prize specimens at recent Georgia exhibits of livestock. Below—A group of registered Poland China pigs near Albany, Georgia*

### Bankers Have Seen the Light

The principal bankers in Georgia announced publicly in 1936 that they would lend all needed capital for livestock development provided the farmer was a good moral risk, that he had a cropping program that would provide the necessary feed, and sufficient experience and ability to carry out the project. Various government lending agencies are in the field. Today sufficient capital is available and at a reasonable rate of interest to finance any sound livestock enterprise.

The raising of meat producing animals is not a substitute or competitor of cash crops but is rather supplementary to them. On farms where livestock is grown the land tends to become richer and the cash crops therefore more profitable. Such a policy will directly and indirectly increase the annual net income of the farmer.

### Summary

In this discussion I have pointed out the fact that there has been an enormous growth in the number of packing houses and abattoirs in Georgia. The first object of a program of live stock development for Georgia and the Southeast should be to make the farm self sustaining for all live stock and live stock products. After this is done the surplus should be sold to the cities so as to make the state and the region self sustaining. The value of packing house products in recent years shows that the business is growing rapidly. The number of animals slaughtered under federal inspection since 1920 is further proof of the fact that Georgia and the Southeast is increasing the number of meat producing animals. It has been clearly demonstrated that the section can produce improved permanent pastures, forage, and feed crops in large quantities and at sufficiently low cost to make the industry profitable. The development of a livestock industry will enrich the land and put many additional

(Continued on page 58)







## Southwest Georgia The Nation's Number 1 Livestock Opportunity

**M**ORE and more is Southwest Georgia destined to become the livestock center of the Nation. Census figures show that this fertile area continues to make remarkable strides, that seem almost incredible. As a result, vast Southwest Georgia plantations are giving way to diversification of crops, and raising of livestock for the rapidly expanding meat packing industry centering here. Her commercial forests, producing saw timber and pulp wood, are being utilized increasingly as double-duty acres for raising livestock. And the long lanes in the thousands of paper shell pecan orchards are filled now-a-days with fattening cattle and hogs, fed on excellent

crops, and abundant legumes and grasses.

That's what we mean when we say Southwest Georgia is the No. 1 Livestock Opportunity of the Nation. That's what we mean when we say it's your future as well as ours. That's why you have a vital interest in this section. The low cost of land, absence of severe winter weather, preponderance of water, shade, and grasses and close proximity to superior meat packing facilities and one-third of the population of the United States make Southwest Georgia the ultimate goal of cattlemen everywhere. Eventually you will come to Albany and Southwest Georgia. Why not now?

ALBANY CHAMBER OF COMMERCE  
ALBANY, GEORGIA

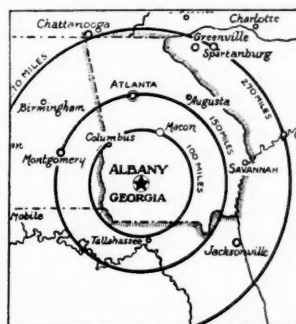
### AN OUTLET FOR GOOD DAIRY BULLS

Through the distribution of purebred dairy bulls, an extensive dairy program is under way throughout Southwest Georgia.



### NOTE ALBANY'S POSITION

Four major packers are within 90 miles of Albany, three within 40 miles. Nearby also are the cities of Atlanta, Macon, Columbus and Montgomery, as well as the great Florida market.



Look At **ALBANY** And Southwest  
GEORGIA





### ***Fertile Land at Low Prices***

Fertile, gently rolling land, with a wide variety of soils, with or without timber and in large acreages or small units, may be bought in the Albany area at remarkably low prices—for exceptional values in farm and pasture lands. Low capital investment in lands and easy, generous financing where desired, are outstanding advantages Southwest Georgia offers cattlemen everywhere.

### ***Double-Duty Acres***

Two crops—livestock and saw timber, livestock and paper shell pecans, pulp wood, turpentine, game, and especially hogs and peanuts—are grown annually on a commercial basis on all the lands in the Albany area. What the long 250-day growing season here means to Southwest Georgia and prospective investors is clearly indicated in the winter crops, and favorable livestock conditions.

### ***Ready Nearby Markets***

There are six modern packing plants (four major companies) in Albany and Southwest Georgia, within a radius of 90 miles—three major companies within 40 miles—where food animals are slaughtered under federal supervision, and 14 abattoirs where animals are slaughtered under state inspection. There are also 20 livestock auction markets here where growers can take their stock at any time and convert it into cash. Southwest Georgia has exceptional marketing facilities.

### ***In the Pictures***

The orderly development of the livestock industry here is graphically told in these pictures. The bottom panel shows herd improvement of native cattle through the use of purebred bulls on vast stretches of growing timber and other crops. The lower left is the \$750,000 plant of The Cudde Packing Company at Albany. Reading upward, a cattle among pecan orchards, herds in turpentine woods, evidence of the abundance of Kudzu and other feed crops, and a typical scene from the area's annual million-dollar game recreation working hand-in-hand with livestock production.

The top panel shows a purebred Hereford bred and grown in the immediate vicinity of Albany, typical of many in this section. Reading upward, the pictures at the right show modern large-scale cultivation of peanuts, King Cotton and the availability of cotton seed products, hogs converting feed crops into cash, and the type of corn grown in this fertile area.



## Prices

a wide variety  
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*The fact is ~*

# IT'S YOUR FUTURE, TOO!

**T**ODAY you can grow live-  
stock in an ideal all-year  
climate amid favorable condi-  
tions that will add a lot of profit  
to your business.

It's in Albany and Southwest  
Georgia, in what we believe is  
the Nation's No. 1 Livestock  
Opportunity area—and when  
you investigate its possibilities  
you'll want to operate here.  
*YOUR* future as well as ours is  
here, too.

Slumbering unnoticed and  
unsung, Southwest Georgia is  
far more than a mere  
suggestion. It is a  
great possibility for  
alert men.

By daring to ven-  
ture into new fields  
of agriculture, we  
are well on our way  
to a new frontier for

livestock men that offers defi-  
nite advantages all the way  
'round.

You can judge that for your-  
self from facts so graphically  
shown by the pictures on these  
pages (taken since August 10th  
this year in the immediate vicin-  
ity of Albany).

All-year ideal climate, never-  
failing water, prolific grasses,  
close proximity to huge popula-  
tion centers, low capital in-  
vestment in two-crop land,  
no wintering costs,  
abundance of feed  
—all are waiting for  
you in Albany and  
Southwest Georgia,  
now.

When you come  
to look, you'll come  
to stay.



*A Growing Poultry Center*



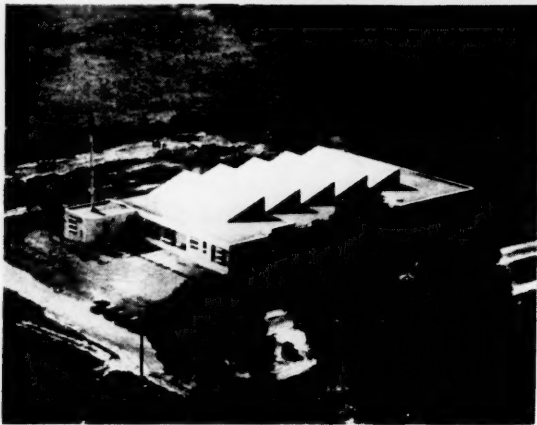
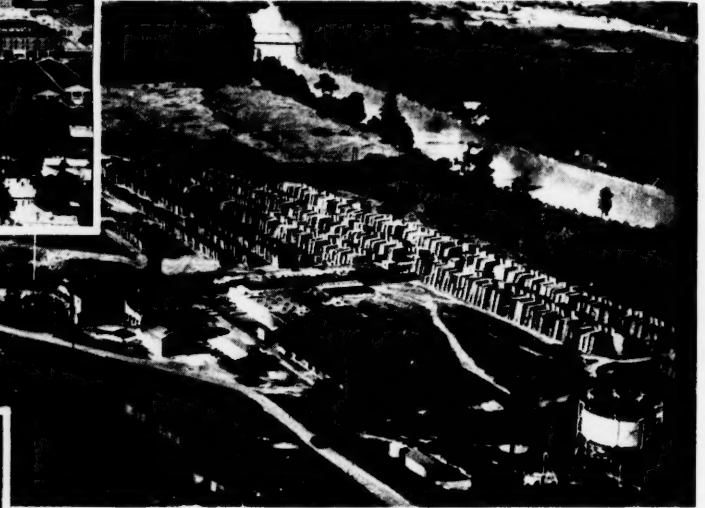
*Look At* **ALBANY** *And Southwest*  
**GEORGIA**



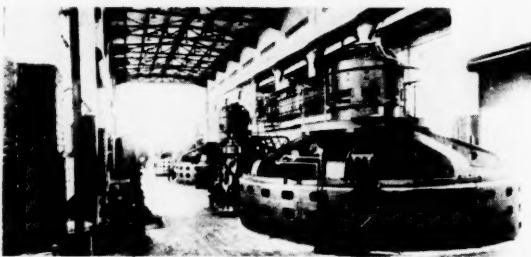
## WHEN YOU LOCATE YOUR NEW INDUSTRIAL PLANT



*Above: Partial view of Albany's downtown section—22,000 friendly folk. Right: Reynolds Bros. Lumber Company with daily production of 115,000 bd. ft.*



*Albany Manufacturing Company's full fashioned hosiery mill, with annual payroll of \$250,000.*



*Georgia Power Company's Flint River hydro-electric plant of 6,500 k.w.h. hourly capacity.*

## Come to Albany In Southwest Georgia

ALBANY'S fitting herself for payrolls has been richly rewarded. With every advantage of location . . . accessibility to raw materials and rapidly expanding consumer markets . . . favorable transportation facilities and rates . . . low-cost power . . . ideal all-year climate and economical living conditions . . . maximum sunshine working-hours for native American men who appreciate an opportunity to work . . . and requiring a minimum investment of capital for buildings . . . Albany is the logical city in Southwest Georgia and the Southeast for the establishment of new industries or the relocation of expanding plants.

Every facility is here for economical and profitable continuous production and distribution. Industry has always prospered here. Peopled by hospitable folk, aided by favorable laws and taxes, enhanced by five railroads with seven branches, transcontinental airway, and a network of modern paved highways, enfolded by timber, livestock, cotton, peanuts, corn and tobacco, Albany has a definite service to offer you.

*We will be glad to prepare and submit, without charge or obligation, a special survey covering your specific requirements. Write us today, and see Albany before you locate.*



*The World's Greatest Pecan Center.*

IF YOU ARE INTERESTED IN LIVESTOCK DEVELOPMENT OR AN INDUSTRIAL LOCATION

Look At **ALBANY** And Southwest  
GEORGIA

FOR FULL PARTICULARS, WRITE THE ALBANY CHAMBER OF COMMERCE, ALBANY, GEORGIA

# Grow or Go, Build or Bust



BY

**Dr. John J. Wicker**

I AM glad to speak to the readers of the MANUFACTURERS RECORD. You are business men. It takes business men to make business, and big business men to make big business.

Any fool can destroy it. I love a man who loves business, a growing business, a big business.

Never mind about the size at the start. Nothing starts big but every healthy thing grows.

It is grow or go, build or "bust."

The most fascinating thing on earth is to watch anything grow. Even weeds look better than barren dirt.

All my life I have been interested in business. It has been a joy beyond words to watch young people, thrifty young people, grow. Character in their bosoms and coin in their banks.

I love to help business. Every red-blooded American should fight, tooth and toe nail to the last ditch against every enemy of the American business man.

It is an American's duty and religious privilege to help every man who is employing labor and building a bigger, better country.

There are three classes of people in this country:

1. Those who help business.
2. Those who hinder business.
3. Those who do not care a fig which way business goes, up or down.

The MANUFACTURERS RECORD welcomes Dr. John J. Wicker as a contributing editor.

Dr. Wicker was left an orphan at eleven years of age, worked his way through school, has been pastor of several churches, world traveller, and for the past nine years President of Fork Union Military Academy at Fork Union, Virginia, where his marked success in the education and character development of boys has made him known to parents in every state.

He believes in hard work, economy, thrift, self-reliance and the time-tested principles that have made America great.

His keen epigrammatic writing drives home with telling effect the truths he sets down. Many thousands of copies of his, "Is It a crime to have a Dollar?", which appeared first in the MANUFACTURERS RECORD have been printed.

Dr. Wicker is known as a man of very definite convictions which he never hesitates to express and is quite able to defend. It is more than likely that his articles will provoke interesting correspondence with those who agree and perhaps disagree, all of which will be welcome and will receive Dr. Wicker's personal attention. Address him in care of this office.—Editor, Manufacturers Record.

Business men want to see everything prosper, so does every real statesman.

Vote-seeking politicians hinder business, and the man with his hand out doesn't care which way it goes.

It does not require a Solomon to recognize each class. Business men were never treated as they are today. By every possible political gesture the finger of legislative suspicion is being pointed at the men who employ others and pay the heaviest taxes we have ever known in our country.

The attitude of certain groups toward business men is, "You shall not succeed if I can prevent it." It is a case of living on a friend's hospitality and throwing him out of the door. It is an inhuman thing to ask a man to furnish and load the gun with which he himself is to be shot.

The Bible says we "must not muzzle the ox that treads out the corn," and many people are disobeying this command by not only muzzling the ox, but slaughtering and eating him.

I hope to write helpfully for your sons the men who tomorrow will be wearing your boots.

The country must pass on to them. We must give them the best possible country in which to live, and prepare them to live the best possible in the country they inherit.

Our country and our children challenge every father and mother.

We must build big boys or there will be no big business.

It takes time and talent and a lot of sweat in the mortar to make a big business and keep it going.

It takes even more to prepare the youth of today to take charge of the business of tomorrow.

No legislative Houdini trick can successfully displace manhood and reach the goal of prosperity.

No distribution of cash, howsoever large and liberal, can compensate for the loss of character when individual initiative is lessened or hindered thereby.

It is not just money that we must have, but something bigger than all the money in the country—American manhood.

We must have men too proud to beg, too honest to steal, and too determined to fail.

Whatever weakens the *will of man* to overcome every difficulty and battle his way up rugged hills to high achievements is an enemy of our boys and girls and an injury to our business as well as a threat to our civilization.

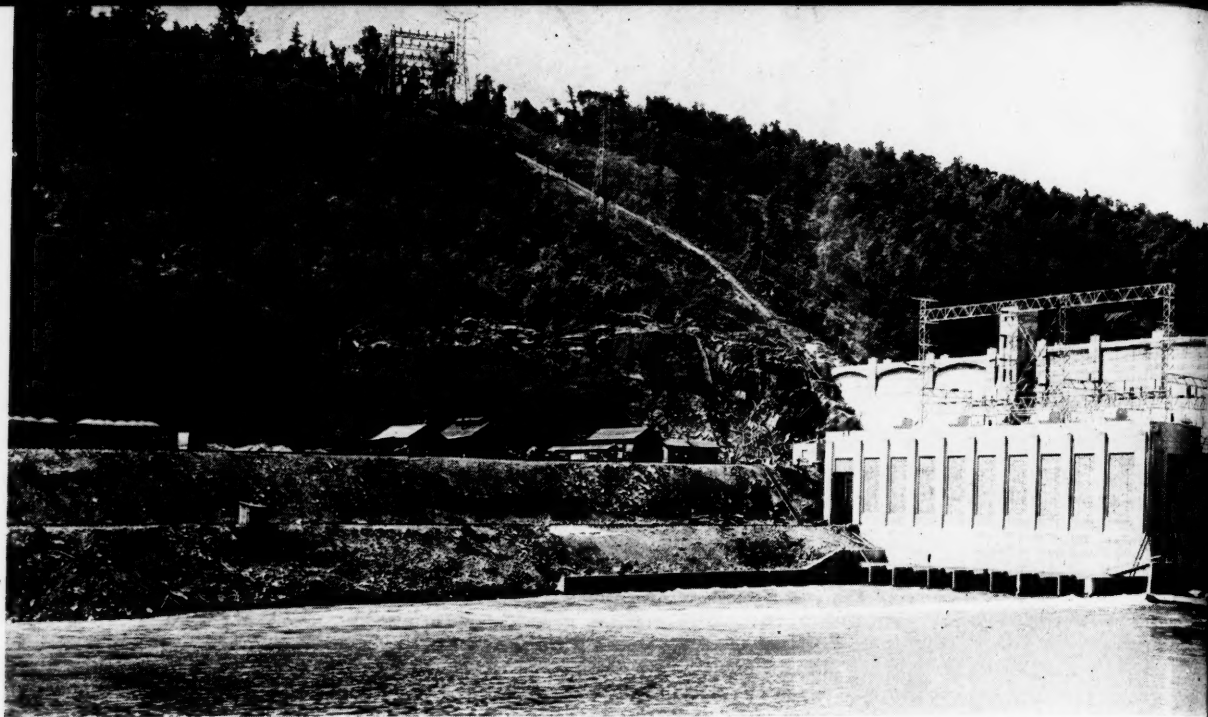
Many men have battled their way from the extremest poverty to the greatest wealth—from illiteracy to outstanding scholarship—from the threatening hand of disease to the conquering hero who laughed at his infirmity.

The fact is, men who are really worthwhile have never reached great objectives by any other road, and yet we are invited today to go down the *road of do-nothing* in order to find everything, and worse still to go out in the field of destruction in order to reap a golden harvest.

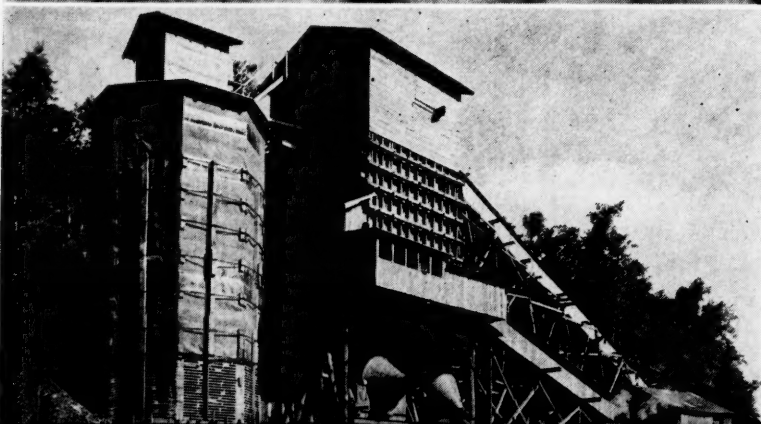
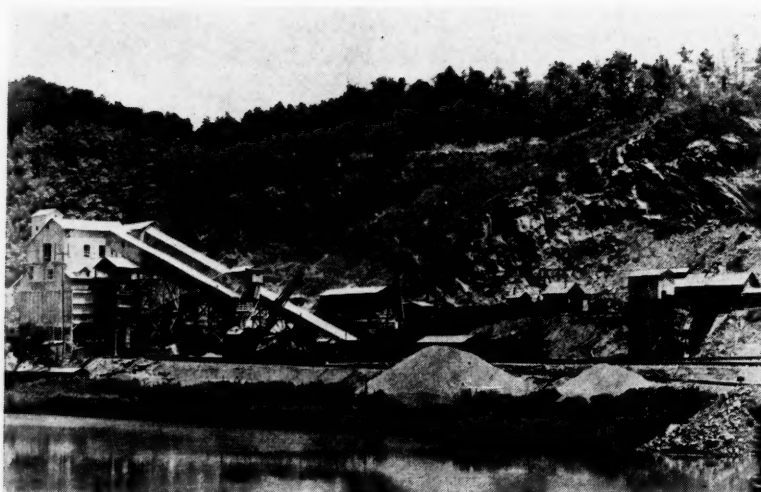
If we are to get out of this mad-house we must return to the sanity that laid the foundations and built the great structure on which the greatest nation of the world today rests.

Give business a fair chance and the music of machinery will sing an oratorio of overflowing prosperity to the joy of the nation.





## Claytor Hydro Development— A Private Investment



**T**HE Appalachian Electric Power Company has just completed and will soon place in service the Claytor Hydro Development, located on the New River about three miles upstream from the City of Radford, Virginia. The development consists of a straight concrete gravity type dam, about 1150 feet long, having a maximum height of 126 feet and contains about 235,000 cubic yards of concrete. The spillway section of the dam is equipped with 9 modified Broome type gates approximately 50 feet wide and 29 feet high. Each gate is controlled by an individual electrically operated hoist and in addition a gasoline-driven traveling hoist is provided for emergency operation. The latter has been constructed so that it will also be used for handling the stop logs that have been provided for use upstream from the crest gates.

The power house, located on the south or right bank of the river is provided with four 26,000 HP, 110 foot head Francis

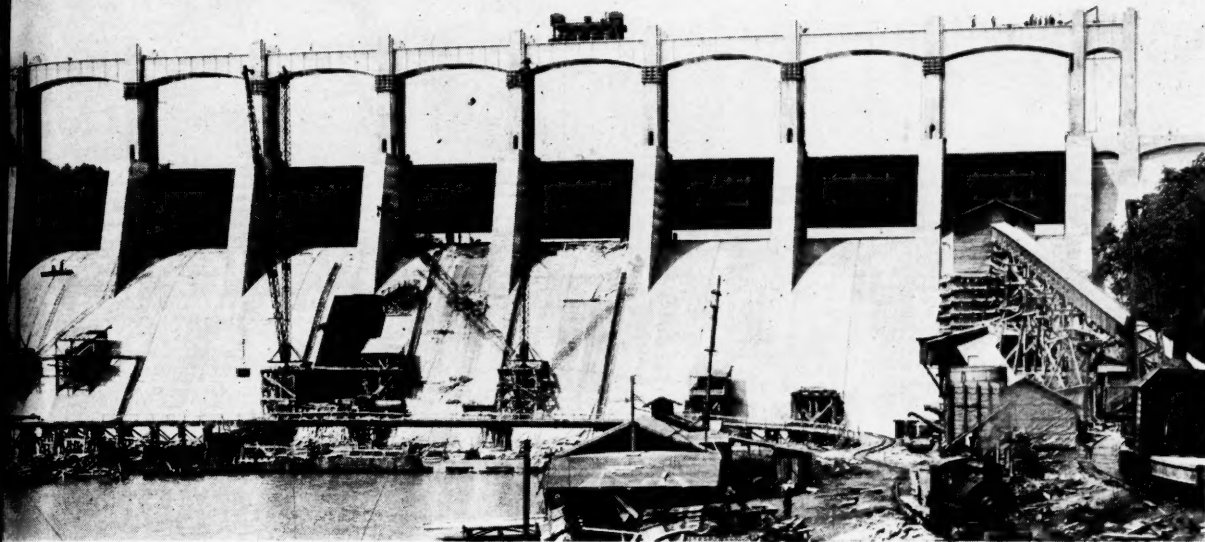
*Left, top—From the Company's own quarry located immediately downstream from the dam was obtained all fine and coarse aggregates required for concrete used in construction. Left bottom—The concrete plant and aggregate storage located on the opposite bank of the river from the quarry and connected therewith by a temporary railroad bridge.*

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type water turbines, directly connected to electric generators of 20,833 kv-a at .9 power factor, 128½ rpm. The four generators are connected through two transformer banks to a 132 kv substation located on the south or right bank at an elevation considerably higher than the top of the dam. An inclined railway is provided between the substation site and the power house area. Through this switching station the output of the plant is connected to the existing 132 kv transmission lines of the Company.

The foundation conditions were very good, the structures in the center of the river being founded on limestone and those at each end founded on dolomite. Minor cavities usual to such locations were found to exist below the river bed and they were sealed off by high-pressure grouting along the upstream face of the dam.

All fine and coarse aggregates required for the concrete structures were manufactured by the Power Company at their own quarry located on the right bank of the river, immediately downstream from the Hydro Plant. Since the only convenient available location for the concrete plant and aggregate storage was on the north or left bank of the river immediately below the dam site, it was necessary to transport materials from the quarry across the river. A temporary railroad bridge supported on rock-filled wooden cribbing was built for this purpose. The concrete mixing plant consisted of two 2 cubic yard mixers, batching plant, cement silo and aggregate stor-

age bins. The concrete was transported in 2 cubic yard bottom-dump buckets on flat cars of a narrow gauge steam railway between the mixing plant and the place at which the concrete was to be deposited. Guy derricks lifted the buckets from the flat cars and placed them at the location where final disposition was to be made.

Dolomitic rock was used for preparing the sand and coarse aggregates, and such satisfactory results were obtained with this product that it was possible to hold the cement contents of the various classes of concrete to a minimum. For the mass concrete structures 3.6 bags of cement per cubic yard of concrete were used, using a maximum water-cement ratio of .75 by weight. The average compressive strength of this concrete for 28 days was about 3200 pounds per square inch. This concrete was used for the interior of practically all of the structures and covered

with an outer facing of concrete approximately 6 feet thick which employed 4.8 sacks of cement per cubic yard of concrete. In this case the water-cement ratio was held to a maximum of .57 and the compressive strength of this concrete at 28 days was about 4800 pounds per square inch.

The maximum rate of placing concrete ever attained was approximately 100 cubic yards per hour and on the best ten-hour shift 1,000 cubic yards were deposited.

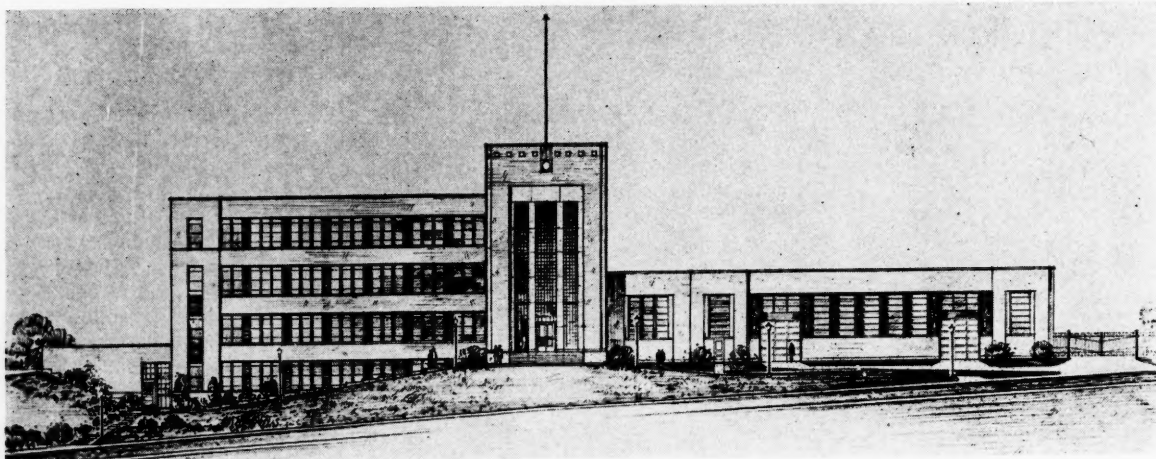
All concrete was vibrated with air-driven vibrators and for this work the job was equipped with 9 vibrators, both rigid shaft and flexible shaft type in one and two man sizes.

The engineering and structural design and the actual construction work has been under the supervision of Mr. Philip

(Continued on page 58)



**Above—General view of the dam nearing completion. Right—Located on the South bank at an elevation higher than the dam are 4 generators connected through two transformer banks to a 132 kv. substation.**



## South's Contracts Strong in August

**C**ONSTRUCTION awards in the South amounted to \$81,333,000 during August.

The total for the first eight months is \$618,915,000, a figure accentuating the high degree of activity that has lifted the level of this year's work far above the aggregates for other years within the last nine.

Mounting industrial construction and maintenance of private building at practically the same pace as that of the preceding month, coupled with an increase in public building, offset August decreases in heavy engineering projects and road work to cut the net decline from the July total to four per cent.

Industrial awards in August totaled \$13,848,000, the highest total for this type of work since April. A \$3,000,000 paper mill addition at Houston, Texas, was the outstanding award among a variety of

smaller enterprises.

Private building in August remained almost stationary, as compared with July, the totals being \$12,687,000 for the former and \$12,775,000 for the latter.

Although public building made a five per cent advance in August, it was far below the peak of the year established in May, when city, county, state and federal work slum clearance projects and schools totaled \$38,594,000. The August public building total was \$28,327,000.

Engineering construction, such as dams, drainage, earth work, airports, sewers and water works and public electric projects, fell twenty-five per cent to \$13,734,000.

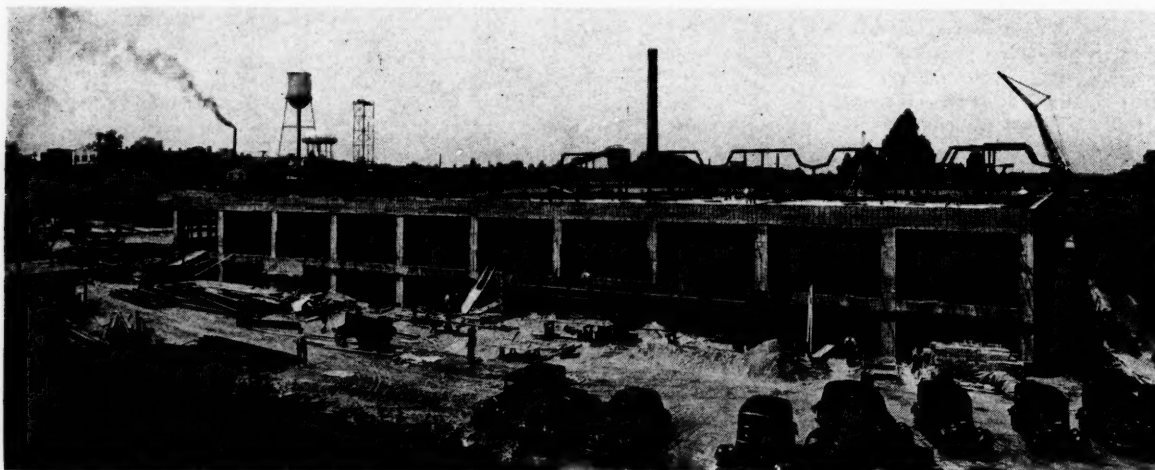
The \$12,737,000 total for highway and bridge work was twenty-eight per cent under the figure in this field for the preceding month. Mississippi, Texas, Kentucky and Oklahoma occupied the highest

positions on the active list.

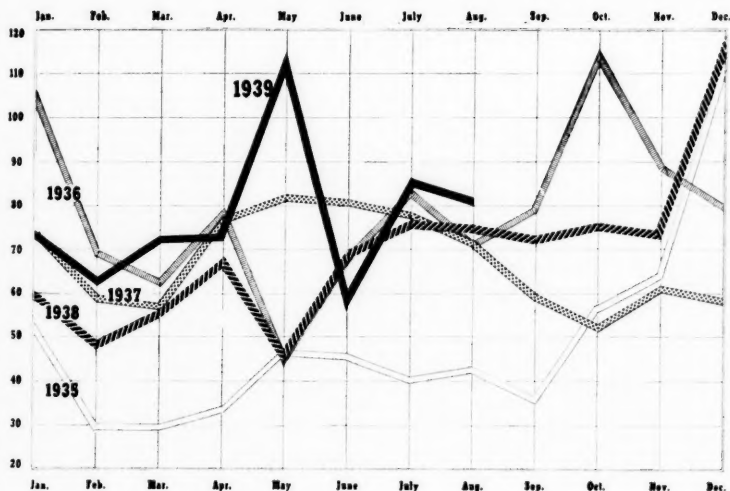
Revival of industrial building was interpreted as an encouraging omen, and with several large and important additions at widely separated points, this type of construction may be in for a greater increase. The most recently announced project was that of the Fairfield-Western Maryland Dairy at Baltimore. A \$1,600,000 expansion is proposed by this corporation, with preliminary drawings completed, according to one of its officials.

The \$4,000,000 first unit of a power plant to be constructed at Mobile, Ala., by the Alabama Power Co. continued expansion of the South's generating facilities. Several other companies already have work under way on similar programs, including the Virginia Electric and Power Co. at Richmond, Virginia, the Duke Power Company at Cliffside, North Carolina, and the Consolidated

*Above—Beers Construction Co., Atlanta, Ga., have received the contract for the Western Electric distributing house in that city. Southern Bell Telephone & Telegraph Co., is at the same time erecting a 100-car garage directly adjacent to the new Western Electric building. The combined facilities will be located on a six-acre plot, with the distributing house having a floor area of about 113,000 sq. ft. and the garage about 24,000 sq. ft. Below—Hanes Hosiery Mills, reputed to be the world's largest plant for making circular-knit ladies' hosiery, has work well along on a \$300,000 addition, which will increase capacity 83 per cent. The building's concrete frame with part of the steel skeleton for the third floor and monitor roof erected is shown in the photograph*







Gas, Electric Light & Power Co., at Baltimore, Md. This latter company is reported to be planning additional improvements. Central Power & Light Company, Corpus Christi, Texas, made ready to build its Nueces Bay station. Florida Power & Light Co., Miami, announced its intention to erect a \$3,000,000, 25,000-kilowatt power plant addition.

Alabama Power Company's project will be located in the industrial section of the Alabama seaport. Plans have been completed for a plant to have an ultimate capacity of 120,000 kilowatts in three units of 40,000 kilowatts each and construction is to proceed as soon as approval of the State and Federal regulatory commissions has been obtained. Pulverized coal is to be used, with steam to be generated at a temperature of 850 degrees and a pressure of 825 pounds per square inch.

The paper mill addition at Houston will be made by the Champion Paper and Fibre Company. Merritt-Chapman & Scott Corporation of New York are contractors for the building and for all neces-

sary installations. High grade coated paper will be produced. The new fourdrinier machine is to built by the Beloit Iron Works, of Beloit, Wis., and will involve an expenditure of approximately \$1,000,000. A new brick and steel building will be 140 by 828 feet long, two stories high with a three-story finishing room and storage space. General Electric and Westinghouse equipment will be installed.

Republic Steel Corporation, Birmingham, will construct a new furnace and increase the capacity of an existing one at a cost of \$500,000. Tennessee Coal, Iron and Railroad Company let contracts in connection with its new ore conditioning and sintering plant at the company's Red Mountain ore mines. Mobile Steel Company has an expansion program under way.

Gulftex Drug Company, Houston, will erect a \$100,000 winery. Billups Petroleum Co. of Memphis, Tennessee, let contracts for a new bulk storage and distributing plant. Wackman Welded Ware Company at Lake Charles, Louisiana, is

(Continued on page 44)

## Statistics of South's Construction

	Contracts Awarded August, 1939	Contracts to be Awarded	Contracts Awarded First Eight Months 1939
<b>PRIVATE CONSTRUCTION</b>			
<b>BUILDING</b>			
Assembly (churches, theatres, auditoriums, fraternal)	\$1,159,000	\$4,040,000	\$11,264,000
Commercial (stores, restaurants, filling stations, garages, etc.)	3,633,000	3,515,000	21,816,000
Residential (apartments, hotels, dwellings)	7,396,000	12,569,000	67,958,000
Office	499,000	468,000	15,071,000
	\$12,687,000	\$20,592,000	\$114,109,000
<b>INDUSTRIAL</b>			
	\$13,848,000	\$17,082,000	\$71,653,000
<b>PUBLIC CONSTRUCTION</b>			
<b>BUILDING</b>			
City, County, State, Federal	\$10,022,000	\$8,570,000	\$92,152,000
Housing	14,083,000	18,905,000	52,744,000
Schools	4,222,000	6,159,000	52,954,000
	\$28,327,000	\$33,634,000	\$197,850,000
<b>ENGINEERING</b>			
Dams, Drainage, Earthwork, Airports	\$8,543,000	\$18,957,000	\$46,219,000
Federal, County, Municipal Electric	3,658,000	3,281,000	43,632,000
Sewers and Waterworks	1,533,000	2,493,000	21,783,000
	\$13,734,000	\$24,731,000	\$111,634,000
<b>ROADS, STREETS AND BRIDGES</b>			
	\$12,737,000	\$19,130,000	\$124,269,000
<b>TOTAL</b>	<b>\$81,333,000</b>	<b>\$115,169,000</b>	<b>\$618,915,000</b>

SEPTEMBER NINETEEN THIRTY-NINE

## HE CAN'T GET IN HERE!



**KINNEAR**  
ROLLING GRILLES

*a*  
**FOOLPROOF  
BARRICADE**  
*With Window Shade  
Convenience*

Here's the way to safeguard your property. The KINNEAR ROLLING GRILLE provides positive protection against intrusion without obstructing light, air, or vision. Its rugged network of solid steel bars and heavy steel links, secured in steel jamb-guides, make it remarkably strong. Coiling easily and compactly above the opening, it remains completely out of the way when not in use, yet is always ready to be instantly lowered and locked in place. Its efficient principle of operation saves maximum floor and wall space and assures lasting, carefree service. And to make it more widely applicable, the Kinnear Rolling Grille is built to fit individual requirements, in doorways, corridors, windows and many other types of openings . . . and is easy and economical to install.

## MACHINE GUARDS

As a safety guard for heavier machinery where ready accessibility is required, a special adaptation of the Kinnear Rolling Grille is unsurpassed for effectiveness, convenience, and durability. It has solved the problem for a number of manufacturers. Submit your requirements for recommendations. There is no obligation.

**The KINNEAR Mfg. Co.**  
1600-20 FIELDS AVENUE  
COLUMBUS, OHIO  
Offices and Agents in Principal Cities  
Columbus, Ohio, and  
San Francisco, Cal.



## South's Contracts Strong In August

(Continued from page 43)

ready to start work on its \$150,000 steel barrel plant. Magnolia Pipe Line Company, Dallas, let contracts for its 225-mile butane line from East Texas to Beaumont. An additional 85-mile line is

proposed by this company. The Houston Post plans a \$75,000 building. Buckeye Cotton Oil Company, Louisville, Kentucky, subsidiary of Proctor & Gamble Company, has a \$400,000 program under way, with a \$350,000 solvent plant proposed.

The Southern Wheel division of the American Brake Shoe & Foundry Company, Birmingham, is understood to be

contemplating erection of a new steel frame and corrugated metal building at a cost of \$100,000. A dehydration plant to be erected at Raymondville, Texas, by Evergreen Farms Company is to cost \$100,000. Shell Oil Company started work on a \$1,000,000 alkylation plant at its Deer Park refinery, Houston. Anheuser-Busch, Inc., St. Louis, is preparing plans for a \$750,000 fermenting and storage cellar.

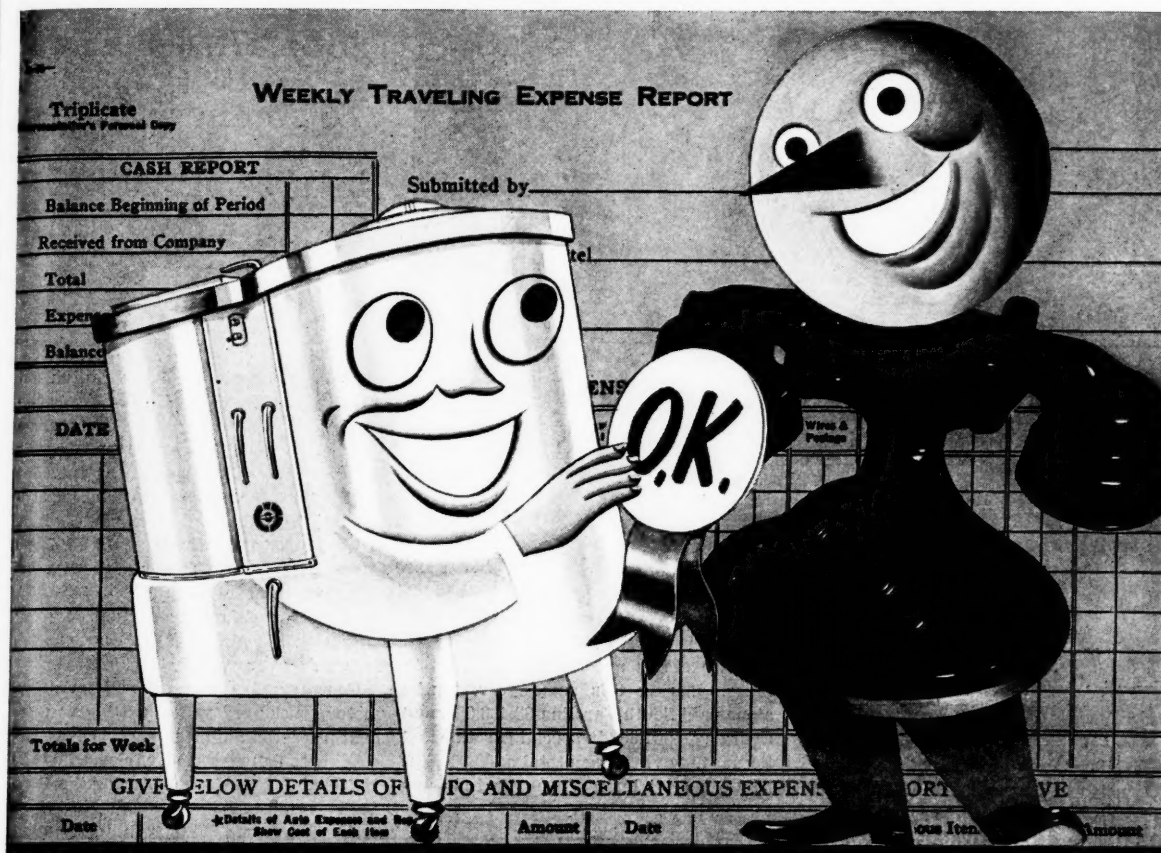
## New Industrial Plants and Expansions in the South During August, 1939

Birmingham, Ala.	New furnace, improvements	\$ 500,000	Republic Steel Corp.
Birmingham, Ala.	Expansion	100,000	Southern Wheel Division of American Brake Shoe & Foundry Co.
Birmingham, Ala.	Mill storage building	100,000	Southern Cement Co.
Decatur, Ala.	Cheese processing plant		Harry Klepper and Welch Dinsmore
Mobile, Ala.	Expansion program		Mobile Steel Co.
Brinkley, Ark.	Bottling plant addition	25,000	Coca Cola Co.
DeWitt, Ark.	Manufacturing and storage building		DeWitt Feed Mill, Inc.
Oseola, Ark.	Sweet potato curing plant		Godfrey White
Texarkana, Ark.	Improvements, marketing facilities	25,000	Texarkana Stockyards Co.
Washington, D. C.	Centralized Food Terminal	1,034,000	National Terminal Co.
Miami, Fla.	Power plant addition	3,000,000	Florida Power & Light Co.
Miami, Fla.	Warehouse addition		Franklin Press, Inc.
Miami, Fla.	Warehouse, show room		Florida Tractor & Supply Co.
Miami, Fla.	Warehouse addition		Franklin Press, Inc.
Miami, Fla.	Bakery addition		Royal Fulton Bakeries
Tampa, Fla.	Citrus canning plant	65,000	Polk Co.
Albany, Ga.	Distillery		Georgia Growers Distilling Co.
Atlanta, Ga.	Factory and office		Southern Wire & Iron Works
Atlanta, Ga.	Warehouse and office		Seaboard Supply Co.
Atlanta, Ga.	Improvements		Parts Manufacturing Service Corp.
Atlanta, Ga.	Assembly building alteration		Chevrolet Motor Co.
Conyers, Ga.	Bottling plant		Atlanta Coca Cola Bottling Co.
Gainesville, Ga.	Bottling plant		Coca Cola Bottling Co.
Griffin, Ga.	Bottling plant		Coca Cola Bottling Co.
Griffin, Ga.	Mill addition		Georgia Kincaid Mills
Marietta, Ga.	Bottling plant		Coca Cola Bottling Co.
Lawrenceville, Ga.	Shoe machinery installation		General Shoe Corp.
Augusta, Ky.	Plant addition	25,000	L. V. Marks & Sons Shoe Co.
Louisville, Ky.	Solvent plant	350,000	Buckeye Cotton Oil Co.
Lake Charles, La.	Steel barrel plant	150,000	Wackman Welded Ware Co.
Shreveport, La.	Bottling plant	350,000	Coca Cola Bottling Co.
New Orleans, La.	Super-shop, office building		Teche Greyhound Lines
Baltimore, Md.	Tinning plant addition		Crown Cork & Seal Co.
Baltimore, Md.	Foundry addition		Harry C. Weiskittel
Baltimore, Md.	Warehouse		Locke Insulator Corp.
Frederick, Md.	Cold storage locker plant	14,000	Articare, Inc.
Relay, Md.	Plant addition		Calvert Distilling Co.
Ridgely, Md.	Condensing plant		Breyer Ice Cream Co.
Kansas City, Mo.	Pipe line		Standard Oil Co.
North Kansas City, Mo.	Wall paper plant	120,000	Superior Wall Paper Co.
North Kansas City, Mo.	Plant addition	100,000	Jesco Lubricants Co.
St. Louis, Mo.	Factory building		United Wood Heel Co.
St. Louis, Mo.	Office building		Titanium Pigment Co., Inc.
Hillsboro, N. C.	Meat packing plant		Piedmont Packing Co.
Marion, N. C.	Dye house		Elizabeth James Mill No. 2
Maxton, N. C.	Synthetic wool plant		Maxton Textile Corp.
Roxboro, N. C.	Plant extension		Collins & Aikman Corp.
Windsor, N. C.	Packing plant		Bertie Packing Co.
Lugoff, S. C.	Gravel and sand plant	75,000	Becker County Sand & Gravel Co.
Greenville, S. C.	Factory building	10,000	Bahan Textile Machinery Co.
Greenville, S. C.	Paper box plant	50,000	Palmetto Box Co.
Chattanooga, Tenn.	Factory building	35,000	Kain-Murphey Corp.
Clarksville, Tenn.	Stock yard		Clarksville Stockyards Co.
Memphis, Tenn.	Bulk storage and distributing plant		Billups Petroleum Co.
Austin, Tex.	Bottling plant		Dr. Pepper Bottling Co.
Corpus Christi, Tex.	Bakery, warehouse, office		H. E. Butt Grocery Co.
Corpus Christi, Tex.	Power station		Central Power & Light Co.
Houston, Tex.	Paper finishing mill	3,000 000	Champion Paper & Fibre Co.
Houston, Tex.	Winery, storage and office building	100,000	Gulfex Drug Co.
Houston, Tex.	Warehouse	35,000	Reed Roller Bit Co.
Houston, Tex.	Expansion	75,000	Houston Post
Houston, Tex.	Converting plant		Houston Printing & Stationery Co.
Houston, Tex.	Iron ore processing plant		H. E. Cockburn
Houston, Tex.	Fur storage building		Hollyfield Dry Cleaners
Houston, Tex.	Laboratory building	25,000	Independent Exploration Co.
Raymondville, Tex.	Dehydration plant	100,000	Evergreen Farms Co.
San Angelo, Tex.	Pipeline		Sahara Oil Co.
Taylor, Tex.	Station improvements		Gulf Oil Co.
Taylor, Tex.	Shirt factory improvements	60,000	Sledge Manufacturing Co.
Wolfe City, Tex.	Improvements	51,000	Wolfe City Oil Mill
Texas	Pipe line		Magnolia Pipe Line Co.
Fredericksburg, Va.	Warehouse	50,000	Sylvania Industrial Corp.
Morrison, Va.	Warehouses	160,000	Chesapeake & Ohio Railway
Oceana, W. Va.	Tipple, railroad tracks		Wyoming Mining Corp.
Huntington, W. Va.	Building	40,000	Coca Cola Bottling Works

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## “Long Distance is one sales expense we’re glad to Okay!”

LONG DISTANCE telephone service does a man-sized job of dealer-coverage for the Easy Washing Machine Corporation.

There are 81 Easy salesmen. Every one must keep in close touch with from 50 to 100 dealers as well as prospective dealers and distributors—and also conduct training schools for the retail sales organizations.

Training work may hold a salesman in one town for a week—but he swings around his territory *on time*—by telephone. He chats with dealers, answers inquiries, books

orders, adjusts complaints—*almost as if he were there in person*. . . Easy says, “We urge our men to use Long Distance because it’s the *only* way they can handle *all* their duties efficiently.”

Many other businesses have proved Long Distance profitable and in a number of different ways. Perhaps the ideas developed out of their experience would be interesting to you. Why not call in a Bell System representative—right now, while you’re thinking of it?





## \$361,078,000 Paid To Southern States in 1938 By Motor Vehicle Owners

# Motor Transport in the South

BY

**By W. B. Love**

*Executive Secretary, Motor Transportation  
Association of South Carolina*

**T**HE motor truck is one of the most important factors in the South's determined march toward economic stability. Thousands of trucks, rolling over hard-surfaced highways day and night, rain or shine, give the people of the South easy and cheap access to the great markets of the North and East.

But the value of the motor truck does not end there. The trucking industry is one of the nation's biggest employers. It pays millions in taxes. It has borne a large part of the burden of building the gigantic network of highways that are spread across the country.

The importance of the truck to the economic life of South Carolina and Georgia is typical of the entire South. There are in South Carolina, for example, 520 communities with an estimated total population of 114,955 which depend on highway transportation. Eight hundred and forty Georgia communities, with 95,813 inhabitants must look to the highways for transportation.

The extent to which the trucking industry contributes to the tax funds of South Carolina and Georgia can best be

illustrated by making a comparison with the railroads. In 1936, the railroads paid the two states a total of \$4,677,196 in taxes. During this same year, trucks alone paid South Carolina \$3,463,080, and Georgia \$6,367,002 in special gasoline and license taxes, making a total of \$9,830,082. These special levies do not include any local ad valorem tax, personal property tax or general sales taxes.

Last year, all motor vehicle owners paid Georgia \$21,681,000 in special taxes, or 53 per cent of the \$47,647,000 collected by the state in all kinds of taxes. In other words, the state received over half of its revenue from highway users in the form of gasoline taxes and license fees. Motor vehicle operators paid South Carolina \$13,117,000 in 1938, which represented 43.6 per cent of the State's total tax revenue of \$30,072,000.

In 1938, the trucking industry gave jobs to 100,835 citizens of the two states, exclusive of those driving farm trucks. Of the total truck workers, 63,018 were employed in Georgia, and 37,817 in South Carolina. Approximately 50 per cent of each trucking firm's gross revenue is paid out to these employees in wages.

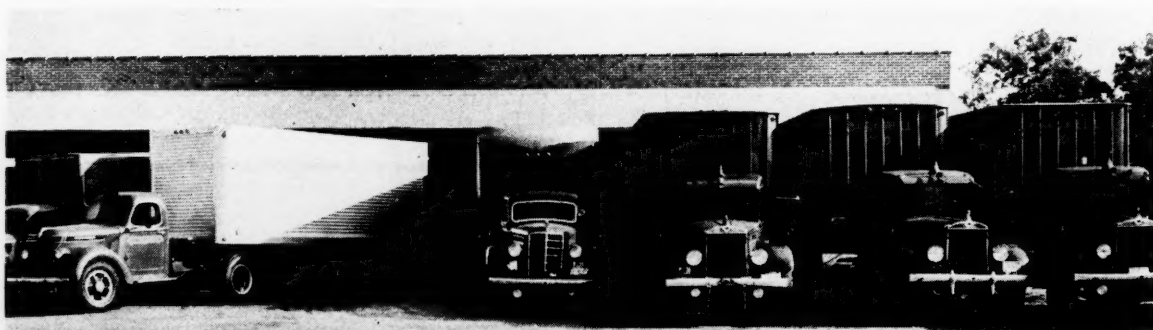
Contrary to a popular impression, the motor truck actually has helped the railroads of the country. The railroads now use 63,781 trucks, not including 10,063 vehicles operated by the rail-owned Rail-

way Express Agency. This coordination of rail and highway facilities affords the nation the most efficient transportation service the world has ever seen. In this connection, it might be pointed out that during 1938, the movement of automotive freight, including vehicles, parts, tires, etc., provided the railroads with 3,095,000 carloads of freight, from which they received a total revenue of \$359,069,000. As a matter of fact one car out of every freight train consists of automotive freight.

Contrary also to popular impression, motor trucks enjoy a much better accident rate than do passenger cars. According to figures recently released by the National Safety Council, during the 1927-1938 period, fatal accidents involving trucks decreased 29% while passenger cars increased 21%. Thus have the operators of commercial vehicles by the careful training and selection of drivers saved the lives of thousands of people using the highways of the nation.

These facts will serve to illustrate the position the trucking industry has attained in a few short years. In swaddling clothes a decade ago, today, with Federal and State regulation, motor transportation offers to the shipping public a comprehensive system which transports freight from first point of origin to final point of destination with but a single movement. A glimpse over the horizon of the future discloses the unfolding of a mighty transportation empire with wide ribbons of concrete spanning the nation from the Great Lakes to the Gulf of Mexico and from coast to coast. In times of peace, an economic factor second to none; in times of war, a contribution which would make our borders impregnable.

*Above—Interior of the terminal of Transportation, Inc., at Greenville, S. C. Below—Outside the terminal of Transportation, Inc., from which a fleet of over 100 units operate through the states of Georgia, North Carolina, South Carolina, Tennessee and Virginia.*





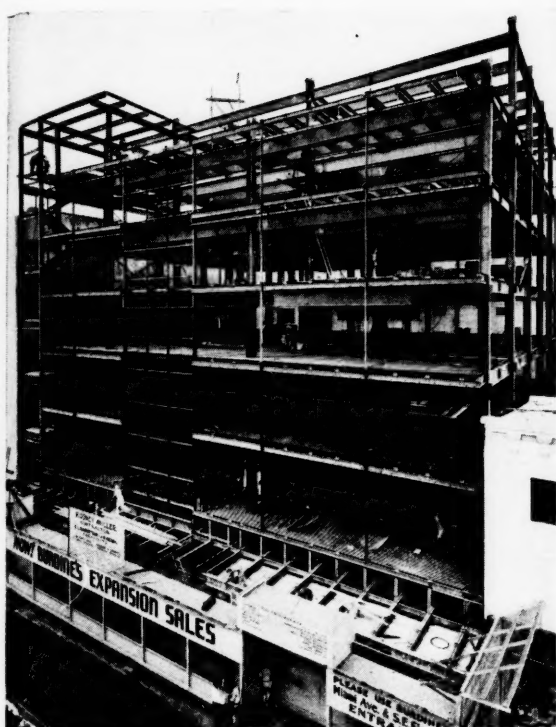
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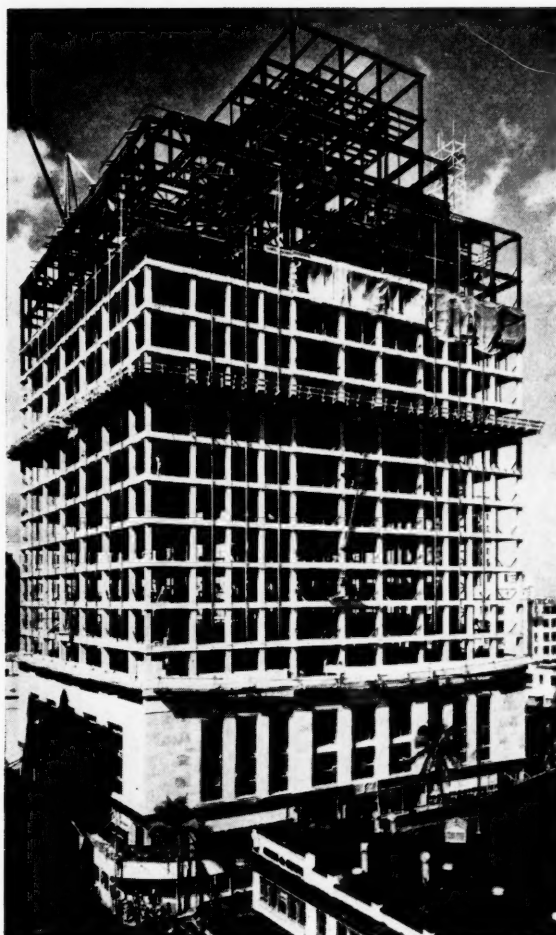
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*Above:* Burdine Building, Miami, Florida; E. L. Robertson, Miami, Architect; L. B. Taylor, Miami, Structural Engineer; Rodney Miller, Miami, General Contractor.

*Right:* Alfred I. duPont Building, Miami. Marsh and Saxelby, Jacksonville, Archts. George A. Fuller Co., New York, Gen'l. Contrs.



## More Miami Skyline

# Virginia Bridge

And it's Steel, as it generally is when we start skyward. Because Steel is the strongest and most adaptable of all building materials.

Its use carries definite assurance against time and the elements.

**STEEL STRUCTURES**

**VIRGINIA BRIDGE COMPANY**

Roanoke	Birmingham	Memphis
Atlanta	New York	Dallas

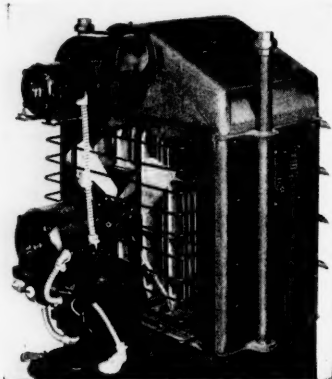
SEPTEMBER NINETEEN THIRTY-NINE

47



# New Ways

# of Doing Things



Gas-Fired Heaters With Automatic Flues

## Gas-Fired Unit Heaters

The Automatic Gas-Steam Radiator Company of Pittsburgh, Pa., announces a new series of five gas-fired unit heaters, ranging in capacities from 85,000 to 200,000 b.t.u. per hour, equipped with automatic flues for venting products of combustion from the interior of the building. Employing natural or manufactured gas for fuel, the heaters are applicable for many types of buildings such as stores, garages, churches, schools and manufacturing plants. The automatic flue consists of a motor and blower connected in such a way that when the heater starts to work, the flue automatically carries the products of combustion through pipe and wall to the outside. The assembly includes a safety pilot which turns off the gas as the pilot goes out or burns too low to insure ignition. In addition to heating, these heaters may be used for other purposes such as ventilating, cooling and drying. In operation, the unit is suspended from the ceiling, out of the way. Gas fires into a combustion chamber and the products of combustion pass upward into a bank of tubes, and are then automatically carried outside. Air is passed around the tubes by means of a motor-driven fan on the back of the unit.

## Allis-Chalmers at Machine Tool Show

Plans have been made by Allis-Chalmers Manufacturing Company, Milwaukee, Wis., for an elaborate exhibit at the National Machine Tool Show to be held in Cleveland, Ohio, October 4-13. On the stage of the main arena, the company will exhibit a comprehensive display of the latest designs of alternating and direct current "Lo-Maintenance" motors, fixed and variable Texrope drives, Variable-Pitch speed changers, Coolant pumps, across-the-line starters and push-buttons. Interesting exhibits will include motor starters in operation, speed variation demonstration by means of DC motors and speed changers, and an actual test of a small close-coupled SS Unit Pump.

## Clark Drill and Die Grinder

Two new tools recently announced by Jas. Clark, Jr., Electric Company of Louisville, Ky., include the Type UBS 3½ drill and the Type O die grinder. The drills are constructed for heavy duty production or maintenance work in auto service stations, industrial plants, bus and trailer manufacturing plants, and shops of all varieties. Motors are air cooled.

The Clark high speed ball-bearing die grinder is adapted to use in tool and die shops, tool rooms, metal working shops, etc. Straight air flow ventilation keeps the motor frame and head cool and comfortable to the operator's hands even under continuous use. The motor is protected from overloads by replaceable fuses.

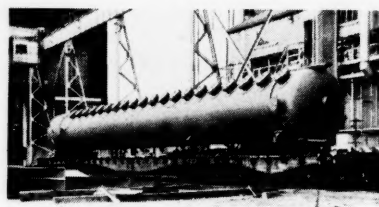
## Chicago Bridge & Iron Co., Celebrates 50th Anniversary

In the fiftieth anniversary issue of The Water Tower, recently published to commemorate the 50th anniversary of the founding of the Chicago Bridge and Iron Company of Chicago, Ill., an illustration and brief description of the company's plant at Birmingham, Alabama, featured the publication. Negotiations by the Chicago Bridge and Iron Company to acquire the Reeves Brothers Company plant at Birmingham were completed in December, 1929, but the company did not take over operations completely until February 11, 1930, after the completion of a small amount of work in the shop.

The plant was built in 1925 and, when taken over by Virginia Bridge and Iron Company, consisted of a fabricating shop, erection shop, riveting tower, forge shop, power house, crane runway, tool storehouse and a brick office building. Equipment was promptly rearranged to facilitate the handling of larger tonnages. In October of 1934, contracts were awarded for the construction of a structural shop

building, 116 by 400 feet. A 500-foot crane runway was completed in June of 1936, and a stress relieving furnace, 14 feet by 17 1/3 feet by 80 feet, was placed in service May 1, 1937. E. E. Michaels took charge of the plant on January 1, 1930 and continues to serve as plant manager, while Walter Garske has been shop superintendent since May 12, 1930.

In connection with the above, it is interesting to note that the company recently fabricated, X-rayed, stress relieved, and shipped from the Birmingham plant two catalytic Polymer towers, 8 feet by 94 feet, 6 inches, for use of the



Heavy Catalytic Towers Recently Fabricated and Shipped

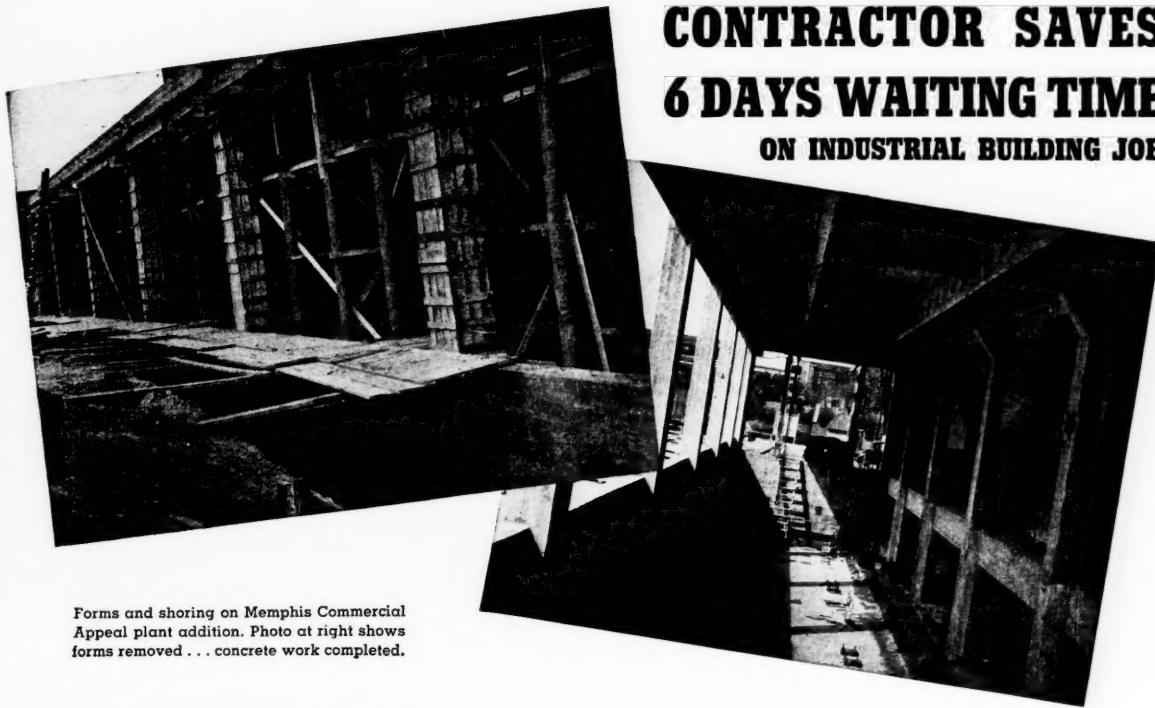
Phillips Petroleum Company at Borger, Texas. These are the heaviest the company has shipped from Birmingham, to date, the vessels weighing 286,000 pounds each. They are fabricated from A-70 fire-box steel, 1½ inches shell thickness, and required more than 5000 pounds of welding wire to weld the manholes. Although the stress relieving furnace at Birmingham is one of the largest in existence for this type of work, it will only take vessels up to 80 feet in length. It was necessary, therefore, to stress relieve one end of the vessel at a time, with the other end projecting through the door and the sides around the vessel closed with a temporary brick wall. The company is now fabricating a similar structure at its Birmingham plant to weight more than 300,000 pounds.

## Chicago Bridge and Iron Birmingham Plant



## FORMS STRIPPED IN 19 HOURS...

## CONTRACTOR SAVES 6 DAYS WAITING TIME ON INDUSTRIAL BUILDING JOB



Forms and shoring on Memphis Commercial Appeal plant addition. Photo at right shows forms removed . . . concrete work completed.

The Memphis Commercial Appeal . . . one of the great and widely-read morning newspapers of the deep South . . . recently built a new addition to their plant. The S. & W. Construction Company of Memphis did the work.

As so often happens . . . the time element played an important part. The "Commercial Appeal" had made all arrangements to place machinery for presses on a certain date. Construction work had to be completed on schedule.

On a Friday . . . the contractor placed quick-use concrete made with Penn-Dixie Quality — the modern High Early Strength Cement. Concreting continued until 6 p.m.

At one p.m. Saturday . . . only 19 hours later . . . the forms were stripped.

Monday morning, work progressed without delay. Tests proved the concrete had developed 3,000 lbs. compressive strength per square inch. By using "Penn-Dixie Quality" for quick-use concrete instead of regular portland cement, the contractor saved 6 days waiting time, enabling the newspaper to place new machinery on the scheduled date. "We are highly pleased with the results of strength tests of Penn-Dixie High Early on this job" writes Clinton J. Wagner of the S. & W. Construction Co.

Architects and engineers . . . factory and industrial plant owners appreciate the value and economies of quick-use concrete for all types of new construction, remodeling, modernization and maintenance work where the saving of time and money . . . delays and inconveniences are factors worthy of careful consideration. Consider "Penn-Dixie Quality" for durable, long-

lasting quick-use concrete. Consider it for your current job. A little figuring will quickly prove how much time . . . how much money it will save. And, if you want friendly, helpful technical data pertaining to "Penn-Dixie Quality" for quick-use concrete on your specific work . . . feel free to phone, wire or write us at nearest office. We'll be glad to hear from you.

Ask for handy booklet of concrete tables, gratis.

### PENNSYLVANIA-DIXIE CEMENT CORPORATION

60 EAST FORTY-SECOND STREET • NEW YORK, N. Y.

BOSTON • ROCHESTER • PHILADELPHIA • ATLANTA • CHATTANOOGA • DES MOINES

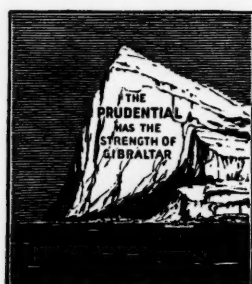


The modern  
High Early Strength Cement

For all types  
of Concrete Construction



ALWAYS IN FULL  
AND ON TIME



Two mighty important advantages of life insurance proceeds paid as monthly income.

May we show you  
our latest plans?

. . .

THE PRUDENTIAL  
INSURANCE COMPANY OF AMERICA  
HOME OFFICE: NEWARK, N. J.

## » » » **Finance** « « « AND KINDRED SUBJECTS

### Suggestions In Order

Gradual improvement in business for the past six weeks has followed Congress' constructive action on the tax bill and refusal to go along with another wild spending spree. A later development in tax outlook is Assistant-Secretary John W. Hanes asking business leaders for their suggestions of what should be contained in a revised tax measure to be taken up when the next Congress meets.

After wages, taxes take the biggest slice of the income of productive enterprise. The bill for taxes is so high in many cases nothing is left for disbursement to shareholders nor for surplus account. It includes all kinds of charges, many of them insidious, that have raised the price of everything and remain to plague a man's family after his death.

Fewer varieties and reduction in amounts are necessary if the invitation to investment capital is to be effective and simplification of method will save precious time now wasted in long hours of work preparing complicated tax returns.

It will be well for business leaders whose suggestions are asked to speak out on this phase which adds greatly to the tax cost harassed business is bearing.

### City Spending

A newspaper item referring to a Southern city that intends reducing its expenditures reminds of the extravagance of municipalities in recent years which has produced a lot of worry for their tax payers.

Local politicians have repeatedly begged for money from Washington for city improvements which could not be afforded even though a benevolent Federal government paid half the bill. They contracted for buildings and bridges that never would have been started if it had been necessary to have the cash before they were undertaken. It seemed to be a game of "getting theirs" while the getting was good regardless of who paid the bill. The result is seen in various cities and towns finding themselves bogged in debt with credit impaired and necessary city services abandoned. In the meantime there has been a serious decline in taxable wealth, and it is not surprising that responsible people are demanding a policy of retrenchment.

### Railroad Earnings

Class 1 railroads are expected to show a net income of \$6,000,000 for July. This is the first month this year that a net income has been earned after all charges have been deducted. The month preceding registered a net loss of \$1,685,000, and July a year ago showed a loss of nearly \$4,000,000. Gross revenues in July will likely prove to be over \$330,000,000 which is more than \$30,000,000 above the same month of 1938. Car loadings are increasing and altogether the railroad picture is better than it has been.

### Building Costs

The T. N. E. C., or translated Temporary National Economics Committee, is reported to be getting ready to investigate building costs. Complaint is general not only that wages have been kept at too high a level while materials have been quoted at lower figures than obtained sometime ago, but that there is no flexibility in labor costs under any circumstances. The result has been that while some building has been going on of smaller type houses the demand for many more medium and low priced homes would be promptly in evidence and in far

(Continued on page 52)

MANUFACTURERS RECORD FOR

# HOW TO LOCATE HANDICAPS THAT SLOW UP WORK IN THE OFFICE



**In a large or a small office,  
the first job is to study the  
work being done at each desk**



Only by surveying the work being done at each desk can you determine whether or not your employees are handicapped by a routine that causes expensive bottlenecks, annoying peak periods, unnecessary duplications, or other needless, costly operations. To help you make such a survey in your office, Burroughs offers you a copy of "Ways to Save Time in an Office," containing definite and practical suggestions.

## GET YOUR FREE COPY

The demand for this new booklet from executives in every line of business has already necessitated a fourth printing. You can get your copy by calling your local Burroughs office. Or, if you prefer, write on your own letterhead to—



**BURROUGHS ADDING MACHINE COMPANY**  
6049 SECOND BOULEVARD, DETROIT, MICHIGAN

# Burroughs





**Y**ou can get all of the water you need, and at an amazingly low cost. The procedure is quite simple on your part. Just put the problem up to Layne. They, with their world-wide experience and years of outstanding success, will come prepared to study your needs and make definite recommendations on the type of wells and pumps best suited for you.

For nearly sixty years, Layne wells and pumps have met almost every conceivable water producing problem. They have met these problems with remarkably low operating cost and almost no upkeep expense.

All features of Layne wells and pumps are based upon proven engineering principles. That is why, when installed for you, they are most dependable for year in and year out high efficiency operation.

Our free bulletins will be mailed at your request. Address,

LAYNE & BOWLER, INC.  
Dept. X-1, Memphis, Tenn.

**LAYNE**

**PUMPS & WELL  
WATER SYSTEMS**

*For Municipalities, Industries,  
Railroads, Mines and Irrigation*

## "Finance and Kindred Subjects"

### Building Costs

(Continued from page 50)

greater numbers than has so far been seen if wages were not pegged at peak figures.

The situation in New York in connection with the World's Fair has been described as a racket on the part of certain labor unions which has added tremendously to the cost of exhibition buildings put up by the people of this country and foreigners also. It would seem that a thorough investigation that will bring to light the facts is needed promptly.

### Withdrawal Of Private Ownership

The dramatic effect of Wendell L. Willkie's words in turning over the properties of the Tennessee Electric Power Company to the T. V. A. will not soon be lost upon the business public. "We hand over our Tennessee Electric properties and a \$2,800,000 tax problem tonight at midnight," said Mr. Willkie . . . "Our facilities in Tennessee have been built with the money of many private investors. The communities never had to increase their debts to build plants and distributing systems . . . The savings of thousands were brought, and would continue to have been brought, into this territory to help produce more industry, more local wealth, and more steady jobs. We have had to sell our electric properties . . . to the T. V. A. and other governmental agencies because we could not stay in business and compete with virtually tax-free and heavily-subsidized plants."

In an advertisement which appeared in Chattanooga papers the Tennessee Electric Power Company said: "and so private ownership and initiative withdrew in favor of the Government. The Company—pioneer citizen and taxpayer—which for more than half a century served the people of the State of Tennessee, was liquidated."

Unless New Deal policies which made this assault upon private enterprise are changed the same story may be repeated in other areas to the detriment of private enterprise and the destruction of American individual initiative.

### War and Finance

Security markets here have see-sawed as news of another possible world war varied from day to day.

The foreign exchange market however was violently upset due to Great Britain's withdrawal of support of the pound and a similar course by France in relation to the franc.

According to the Treasury Department there is held in the United States at present approximately \$6,400,000,000 for foreign account in stocks and bonds, short term deposits and earmarked gold. To meet demands, should they arise, we have in gold over \$16,500,000,000, while in 1914 we had \$1,000,000,000. As to any possible drain upon American banks the recent figure of \$4,400,000,000 in excess reserves alone gives a rather definite idea of present day strength of the country's financial institutions.

### Steel

For the last week of August steel companies were operating at 63 per cent of capacity or 50 per cent above a year ago.

Shipbuilding and automobile demand are mainly responsible for the increased production although there have been some fairly large structural orders as well as pipe line purchases and buying by railroads.

Always watched as a barometer of general conditions the business world is heartened as steel output improves and shows sustained strength.

Birmingham which has been the bright steel spot throughout the depression maintains a production rate of 75 per cent capacity.

## Look at the Map!

Study your map of America and you will see how advantageously Pensacola is located from the standpoint of industry and commerce. Almost due south of Chicago, Pensacola is at the northernmost point of the Gulf of Mexico, almost halfway between Tampa and Houston. It has a great natural deep-water port and splendid railway transportation to East, North and West. Close to the iron and coal of Alabama, close to the timber lands of the Gulf Coast, it is convenient to all the natural resources of the deep South.

It has splendid living conditions, low operating costs, freedom from labor troubles, and a friendly governmental attitude on the part of city and state. For any particulars about Pensacola's advantages and opportunities, write C. F. Langford, Municipal Advertising Board, 22 West Garden Street, Pensacola, Florida.

## PENSACOLA

FLORIDA \* \* On the Gulf

### BUSINESS IS IMPROVING

and plans for new development  
are being made.

Our purpose is to help business

Correspondence invited

#### BALTIMORE COMMERCIAL BANK

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Member Federal Reserve System  
Member Federal Deposit Insurance Corporation

### STOP THE RAVAGES OF DRY ROT AND TERMITES

by pressure-treating your lumber and timber with ZMA or Creosote. Eppinger and Russell Co.'s preserving process increases the life of woods from 8 to 20 times. For more than half a century the outstanding utilities and industrial plants have depended upon Eppinger and Russell Co. for long-life, low-maintenance lumber that is immune to decay, dry rot and termite attack.

PRESSURE-TREATING PLANTS AT:  
Jacksonville, Fla.  
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Long Island City, N. Y.

WOOD PRESERVERS SINCE 1878  
**EPPINGER AND RUSSELL CO.**  
84 Eighth Ave., New York City

## "THE BEST BUY"

### THE New **AUTOMATIC** CENTER-CONTROL FRONT WHEEL DRIVE Fork and Ram Truck

Telescopic  
and  
Non-telescopic  
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Capacities  
4,000  
to  
6,000  
pounds



UNIVERSALLY this New AUTOMATIC Center-Control truck fulfills the Requirements of Every INDUSTRY for the Most MODERN MECHANIZED MATERIAL HANDLING UNIT available. . . . One which affords the Greatest Overall Efficiency and Accuracy in operation. . . . Exceptional Control, Ease, and Flexibility in maneuvering. . . . with Ultimate Safety to Operator, Materials, Mechanism.

Some AUTOMATIC HIGH POINTS are. . . . All Welded Center-Control Frame of exceptional strength. . . . Unusual short wheel-base, overall length and width, short turning radius. . . . Solid machined channel uprights of high tensile steel, lower and upper sections cross-braced for perfect alignment laterally and longitudinally. . . . Special alloy steel roller lift chains with built-in neutralizing feature. . . . Highly efficient Spur gear drive and Lift mechanism and worm type tilt unit, all gears running continually in oil bath. . . . Improved "Automatic" ball-bearing steering connections, self compensating wear type with dirt proof perma-sealed casings. . . . Center Pivoted trail axle with caster type trail wheels for maximum right angle steering. . . . "Automatic" ROTOR-BRUSH controls accessibly located for operator with dynamic fork control for safe lowering speed. Magnetic drain plugs.

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Chicago, Illinois

"Ship ON PALLETS" . . . Save TIME . . . Aid LABOR

CUT COSTS WITH New "AUTOMATICS"

## INDUSTRIAL NEWS

### Carnegie-Illinois Appointments

Philip M. Guba, manager of sales of the Chicago district sales office of Carnegie-Illinois Steel Corporation since January, 1938, has been appointed Eastern sales manager, with headquarters both at New York and Pittsburgh, coordinating sales activities of the company's offices in the Eastern area, including Boston, Hartford, New York, Philadelphia, Baltimore and Washington. He will be succeeded at Chicago by Griswold A. Price, manager of sales, Bar, Strip, and Semi-Finished Materials Division, General Sales Department. Thomas J. Bray, Jr., manager of sales, Pittsburgh District, succeeds Mr. Price, and Joseph G. Armstrong, Jr., assistant manager of sales, Pittsburgh District, succeeds Mr. Bray.

### Leech Becomes Frick Branch Manager

Frick Company, Waynesboro, Pa., announces the appointment of Cyril Leech as manager of its branch office at 718 Witherspoon Building, Philadelphia. A graduate of the Portsmouth Engineering School of Portsmouth, England, Mr. Leech has been engaged in refrigerating engineering work since 1922. For nearly ten years he was with the Mack Machine Company, Frick distributors in Philadelphia, and for two years with H. H. Ward Company of Chester, Pa., manufacturers of sheet metal work. He returned to Philadelphia in 1935 to become assistant to H. B. Pennington, former Frick branch manager, now retired.

### York Makes Vogel Works Manager

J. H. Vogel has been appointed general works manager of the York Ice Machinery Corporation of York, Pa., according to announcement by W. S. Shipley, President. Graduating from Penn State College in 1923, Mr. Vogel, who was employed by York in 1915, as an apprentice in the industrial course, continued with the Corporation as outside erecting engineer. Three years later he was assigned to special developments in the superintendent's department and eventually was made assistant superintendent. In 1931, he was appointed assistant works manager in charge of methods and equipment. Mr. Vogel's father, C. W. Vogel, has been connected with York since 1899 and for several years was works manager. He now holds the position of consultant.

### General Electric Appointments

Three appointments for the Southwest district, with headquarters at Dallas, Texas, have been made by General Electric Company of Schenectady, N. Y., according to announcement by L. T. Blaisdell, commercial vice president of the company at Dallas. R. T. Shiels, manager of the industrial department at Dallas, has been appointed assistant to the district manager; H. A. White, manager of the El Paso office, succeeds Mr. Shiels at the Dallas office, and E. C. Wise, of the general sales department at El Paso, has been appointed manager of that office. Mr. Shiels joined the student test course of General Electric in 1910 at Schenectady and entered the sales department in 1912; Mr. White, starting as a student on the test course in 1915, went to the motor division at Lynn in 1916, and Mr. Wise joined the student test course in 1910 and went to the switchgear department at Schenectady in 1912.

### Connors Producing Electric Steel

An announcement of the Connors Steel Company of Birmingham, Ala., states that the installation of an electric steel plant for the production of carbon and alloy steel billets has greatly increased the range and improved the high quality of Connors steel products, beside increasing production capacity to meet a growing demand. The new furnace, recently completed at a reported cost of \$100,000, enables the company to produce cotton ties, barrel hoops, strip and light structural shapes from electric steel billets, while Connors reinforcing bars, merchant bars, shapes, and other Connors steel products may now be furnished either rolled from rail steel or electric steel.

Electric steel is tough, strong and corrosion resisting, as well as clean, and the manufacture of its own electric steel billets gives the Connors company close control over the high quality of its products. The company's plant is now in production of Connors H-Web Joists, made of electric steel, on which printed data and specifications are being prepared.

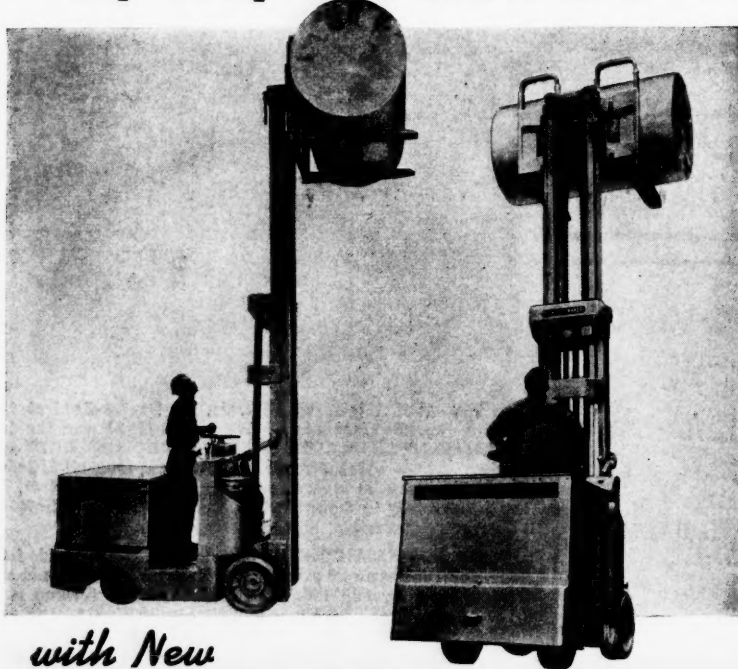
### Chemical Industries' Exposition

Upon the occasion of the Seventeenth Exposition of Chemical Industries, to be held at Grand Central Palace, New York, during the week of December 4 to 9, the Exposition will celebrate the completion of its 25th year of service to the chemical and allied industries. Many of the exhibitors in the first exposition in 1915 have engaged space this year for the Seventeenth Exposition. More than 280 exhibitors have made contracts to exhibit, and more than 200 of these have been participants in the Chemical Exposition in previous years. The Exposition, having been held sixteen times, is now on a biennial basis. Dr. M. C. Whitaker, long a leading figure in the chemical industry, is chairman of the Advisory Committee for the coming exposition, and Charles F. Roth, Grand Central Palace, will have personal charge of it. Professor W. T. Read, Dean of Chemistry, Rutgers University, will direct the Student Course in Chemical Engineering, a course that has become an established feature of the Exposition.

### Portable Generator and Electric Tools

With a definite trend on the part of progressive builders and contractors to purchase portable generating equipment for the operation of portable electric saws, drills or hammers, for use in construction work, the introduction of a combination unit consisting of a portable generator and portable electric tools, by Skilsaw, Inc., of Chicago, Ill., makers of portable electric tools, is not only interesting but a bid to meet the demand for such units. The generating unit, to which reference is made, is manufactured by the Homelite Corporation of Fort Chester, N. Y. It has sufficient electrical output to operate an electric hand saw of a size capable of doing 95 per cent of the cutting on any construction job, is light and compact.

*You Win*  
**Every Way You Look at it . . .**



*with New*

### Elwell-Parker Center Control Trucks

**You win!** Elwell-Parker offers new, down-to-the-minute Center Control Trucks in 5 completely separate sizes and capacities. **Choice!**

**You win!** Center Control design by Elwell-Parker gives operator improved visibility by bringing him closer to his load; by providing increased safety, better control of Truck and load in close quarters. **Adaptability!**

**You win!** Operating mechanism in all

Elwell-Parker Center Control Trucks is identical with same equipment in widely-used, proven Elwell-Parker Rear-Control Trucks of corresponding sizes. **Interchangeability!**

Select the Truck best adapted to *your* needs from 10 Standard Elwell-Parker Models, with correct attachments to fit. Write or wire today.

The Elwell-Parker Electric Company, 4238 St. Clair Avenue, Cleveland, Ohio.

**ELWELL-PARKER** *Power Industrial* **TRUCKS**

ESTABLISHED 1893 • BUILDING POWER INDUSTRIAL TRUCKS SINCE 1906



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FOR

# NATURAL GAS

A fuel whose value has been proven by years of use in a most diversified line of industrial applications.

Natural gas has created the possibility of effortless comfort by the facility, and economy with which it fits into the home.

## SOUTHERN NATURAL GAS COMPANY

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Birmingham, Ala.



- DIESEL-ELECTRIC
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- DIESEL-MECHANICAL
- 
- GASOLINE-ELECTRIC
- 
- GASOLINE-MECHANICAL
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- ELECTRIC STORAGE BATTERY
- 
- ELECTRIC TROLLEY

## DIESELS FOR INDUSTRY

This 25-ton, 179 horsepower Whitcomb Diesel-mechanical locomotive is in service at the Osborn plant of Wabash Portland Cement Company.

For more than thirty years Whitcomb has been building internal combustion locomotives for industry. Today's Whitcomb Diesel locomotives reflect this long experience combined with the engineering resources of Baldwin.

The Whitcomb Locomotive Company (Plant at Rochelle, Ill.). Subsidiary of and all sales made by The Baldwin Locomotive Works, Paschall Post Office, Philadelphia, Pa.

# WHITCOMB LOCOMOTIVES

SUBSIDIARY OF THE BALDWIN LOCOMOTIVE WORKS



## For spotting your cars— JONES CAR PULLERS

**Y**OU will be surprised how much time can be saved in the spotting and switching of cars by using a Jones car puller. These sturdy, compact units will speed up car handling to the point where they soon pay for themselves in the saving of time and labor.

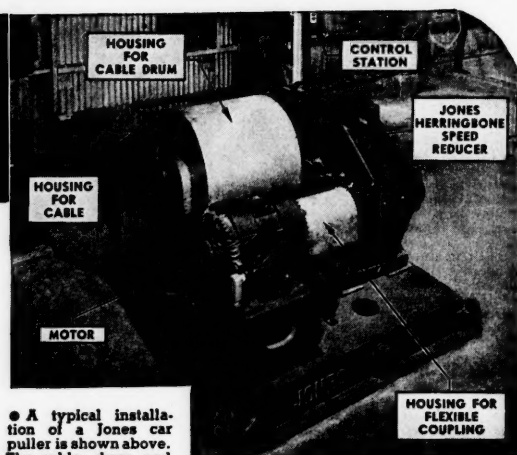
These car pullers are built by Jones as complete units with motor included if desired, or with base to take standard motor, as supplied by the purchaser. The cable drum is driven by a Jones triple reduction Herringbone speed reducer and the control station may be located at a point to give the operator a clear view of the tracks and spotting positions.

Even in plants where comparatively few cars are handled it has been found that a Jones car puller more than pays its way. Prices and complete information will enable you to judge whether such an outfit might pay out in your plant. Write for complete information.

**W. A. JONES FOUNDRY & MACHINE CO.**  
4425 Roosevelt Road, Chicago, Illinois

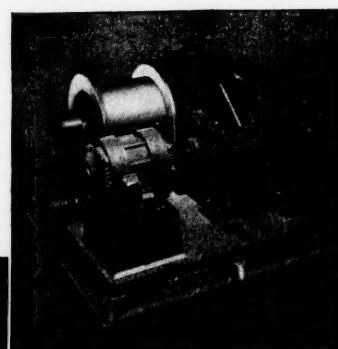
# Jones

HERRINGBONE—WORM—SPUR—GEAR SPEED REDUCERS  
CUT AND MOLDED TOOTH GEARS • V-BELT SHEAVES  
ANTI-FRICTION PILLOW BLOCKS • PULLIES  
FRICTION CLUTCHES • TRANSMISSION APPLIANCES



• A typical installation of a Jones car puller is shown above. The cable, drum and couplings are enclosed by sheet metal housings as an extra precaution in this installation to eliminate all hazard from moving parts.

• A complete Jones car puller unit. These outfits are for use with wire rope and are manufactured in a wide range of capacities to suit the number of cars to be handled in each plant.



## The City of MARTINSVILLE modernized



**HERE** is an example of the many advantages resulting from modernization: in 1932 three horizontal shaft turbines were replaced by one 1000 K.W. Smith-Kaplan Adjustable Blade unit and a 300 K.W. vertical Francis turbine.

Recently, the City of Martinsville, Va. reported:—90% operating time, negligible maintenance, unnoticeable wear, and marked gain in power production at all flows—particularly at

low flows! In fact, a comparison of monthly power output for similar flow conditions shows gains of as much as 150% with the Smith-Kaplan unit in operation.

Write us for detailed figures and further examples. Know what modernizing with Smith equipment means in the way of increased earning power!

**S. MORGAN SMITH COMPANY**  
**YORK, PA.**

## TRADE LITERATURE

### MACHINE TOOLS—

Booklet—"Machine Tools and You," presenting an address made to the Army Industrial College at Washington by Howard W. Dunbar, Past President of the National Machine Tool Builders' Association, and vice president and general manager of the Grinding Machinery Division of The Norton Company; the publication is illustrated and outlines interestingly the development of the machine tool and the part it plays in elevating our standard of living.

National Machine Tool Builders' Association, 16525 Carnegie Avenue, Cleveland, Ohio.

### WATER-LUBRICATED PUMP—

Bulletin 139-A—illustrated, devoted to an improved type of water-lubricated pump, printed in three colors and showing an interesting cross-section of the entire pump assembly, revealing the flow of water through the bowls and the method of sealing the impellers by a double seal.

Peerless Pump Division, Food Machinery Corporation, 301 W. Ave., 26, Los Angeles, Cal.

### TOOLS AND TOOL HOLDERS —

General Catalog No. C-39—covering all ARMSTRONG lines, including: "ARMSTRONG" Tool Holders, Carbon, Chrome-Vanadium and Detachable Head Socket Wrenches; "C" Clamps; Lathe and Milling Machine Dogs; Turret Lathe and Screw Machine Tools; Ratchet Drills; Bits; Blades and High Speed Steel; Setting-Up Tools; Machine Shop Specialties, and "ARMSTRONG BROS." Pipe Tools.

Armstrong Bros. Tool Company, Chicago, Ill.

### PISTON-RING EXPANSION JOINT—

Bulletin No. 35-15A—revised, 12-page, illustrated, devoted to ADSCO Piston-Ring Expansion Joint which can be completely unpacked and repacked under full operating pressure without shutting off steam or interrupting service; copies available from—

American District Steam Co., North Tonnawanda, N. Y.

### JACKBIT GRINDERS—

Bulletin—illustrating and describing two new Jackbit Grinders—Sizes J3 and J5.

Ingersoll-Rand Company, 11 Broadway, New York City.

### GLASS PUMP—

Bulletin 313—devoted to a new type of pump, the Nash Glass Centrifugal, claimed by the manufacturer to have the "mechanical advantages of metal, and the chemical advantages of glass"; made of "Pyrex" brand heat and shock resisting glass.

Nash Engineering Company, South Norwalk, Conn.

### METAL FOR MACHINE TOOL CASTINGS—

Booklet—"Mechanite—The Metal for Machine Tool Castings," containing seven charts of engineering properties and twenty-nine photographs of various applications of Mechanite as made by ten leading machine tool builders.

Mechanite Research Institute of America, Inc., 311 Ross Street, Pittsburgh, Pa.

### TRACING PAPER—

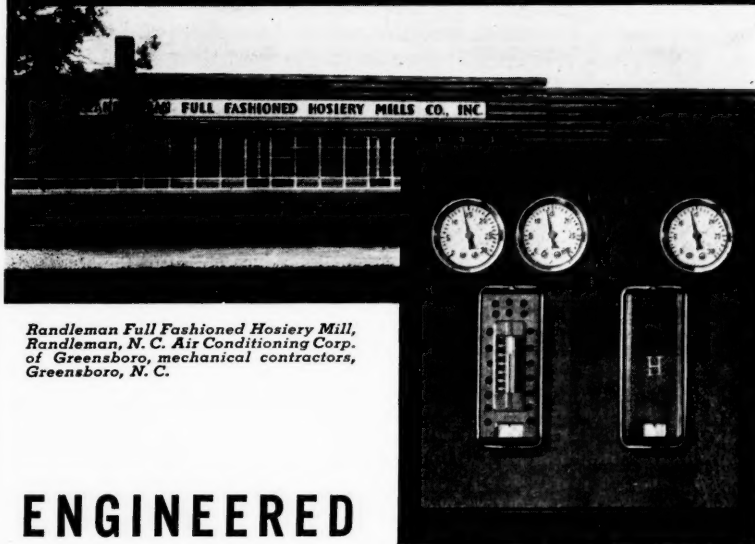
Folder—illustrating and describing the new Albanene Tracing Paper.

Keuffner & Esser Co., Hoboken, N. J.

Applied Economics for Engineers—By Bernard Lester, of the Westinghouse Electric and Manufacturing Company; Member, American Institute of Electrical Engineers; Lecturer, University of Pittsburgh; published by John Wiley & Sons, Inc., New York City, and Chapman & Hall, Limited, London. Price \$4.00.

Outlining the purpose of the publication, the author states in his preface that in his observation of the progress of a large number of engineering graduates as they enter various fields of technical endeavor he has been "impressed with the importance not only of a clear understanding of economic principles, but also of the application of these principles in the many branches of technology." The preparation of the book, therefore, is an endeavor on the part of the author to provide the student in engineering, as he states it, with an introduction to the practical aspects of economics, basing it upon conditions and problems likely to be encountered in practice.

# HOLD DOWN COSTS AND LOSSES WITH JOHNSON AUTOMATIC CONTROL



Randleman Full Fashioned Hosiery Mill, Randleman, N. C. Air Conditioning Corp. of Greensboro, mechanical contractors, Greensboro, N. C.

## ENGINEERED TO THE NEEDS OF MODERN PLANNING

Modern planning in the full-fashioned knitting industry includes provisions for maintaining certain very definite temperatures and humidities. JOHNSON experience in controlling those conditions automatically provides Johnson's trained technical staff with detailed knowledge of the requirements.

Relative humidity is kept at just the right point so that the thread is soft and pliable. This insures good knitting conditions, prevents streaks and tight stitches when machines stop. Johnson-controlled temperature, maintained at a uniform level throughout the entire working area, is extremely important, too. Close adjustment of machine parts and perfect operation are possible only when temper-

ature is maintained automatically, within close limits.

In the Randleman Mill, 57,000 cubic feet of air are handled every minute by the air conditioning apparatus. Pictured above is one of the panels of Johnson controlling instruments which are the "brain" of this conditioning system. Thermostat, at left, for automatic regulation of temperature; Humidostat, at right, for automatic humidity control . . . While maintenance of proper conditions is essential in full-fashioned knitting, there are many other types of plants, of every size and description, in which similar problems are encountered. Those problems are "regular business" for the Johnson organization. Without obligation, ask a Johnson engineer to call.

# JOHNSON

Automatic TEMPERATURE AND AIR CONDITIONING Control

JOHNSON SERVICE COMPANY: MILWAUKEE, WIS. AND DIRECT BRANCHES IN PRINCIPAL CITIES

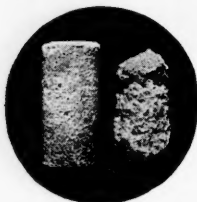


**MR. GEORGE E. MCINTYRE**, Architectural Engineer on the Missouri Penitentiary Wall, Jefferson City, Mo., reports, "The wall was too narrow to permit workmen inside the forms and, as it was highly desirable to construct it without horizontal joints, it was necessary that a concrete of high plasticity be used."

"Trials showed that two pounds of Pozzolith per sack of cement increased the workability to such an extent that no difficulty was experienced in placing even under the most difficult circumstances. The concrete flowed perfectly, with a minimum of placing labor, and gave a splendid appearing surface when the forms were removed."

"Pozzolith enabled us to maintain our established water cement ratio and, at the same time, produced the desired plasticity."

#### SEND FOR THIS IMPORTANT TEST!



Freezing and thawing tests on Pozzolith concrete made by a leading university laboratory — authority in concrete research — show concrete durability is tripled by Pozzolith. Your copy of this report sent free upon request.

Send for full information to

**THE MASTER BUILDERS COMPANY**  
Cleveland, Ohio

In Canada: **THE MASTER BUILDERS Co., Ltd.**  
Toronto, Ontario



## The America Launching an Important Event

(Continued from page 29)

for a like period. Nearly eleven million dollars in wages will be paid out to those who have worked on the ship or materials for it. The keel was laid a little more than a year before the launching, on August 22nd, 1938, and at the time of the launching, approximately 55% of the work was completed. The ship will begin active passenger service in the United States Lines next spring.

At the time the contract for construction was signed, the Maritime Commission declared that the *America* would be the "world's safest ship," and every detail of the construction has borne this out. The wood veneers used for decorative purposes are only 1/28 of an inch thick, and beneath them lies 7/8 of an inch of non-inflammable and highly heat-insulating marinite, a new material which was severely tested by the Government recently. All public rooms, cabins, and corridors are thus safeguarded. Throughout the entire design of the ship are incorporated up-to-the-minute safety devices, all conforming to the latest rules of the Bureau of Marine Inspection and Navigation.

The launching itself was a miracle of modern engineering, and the result of weeks preparation and rehearsal. Every operation of the launching crew was planned carefully in advance, down to painting on each of the stays the exact time it was to be knocked out. 45,800 pounds of various greases were applied to the ways to keep friction down to a minimum, but even so the timbers smoked as the vessel passed over them, and fire-fighting apparatus was at hand to take care of any possible flames that might break forth. The whole ceremony was performed with the regularity of clock-work, and the Newport News Shipbuilding and Dry Dock Company is to be congratulated for the apparent ease with which they handled the tedious affair.

In the brief speeches at the launching, perhaps the most significant words were those of President Roosevelt in a letter to Rear Admiral Emory S. Land, Retired, Chairman of the Maritime Commission. The letter was read at the ceremonies by Mrs. Roosevelt, who christened the vessel. "The tense state of the international situation makes it particularly desirable that we have a merchant fleet capable of carrying our commerce if and when foreign ships are withdrawn, and, should the unfortunate necessity arise, of serving as the necessary supply force for naval vessels."

## Livestock—the Salvation of Southern Farms

(Continued from page 34)

idle acres to a profitable use. Since Georgia and the Southeast is in an area of under production for all livestock and livestock products there is a definite market for all that can be produced.

The success that has come to those who have engaged in livestock farming is causing many to think seriously of the business. The gospel of more and better livestock on every farm is a new declaration of independence for the South.

## Claytor Hydro Development—A Private Enterprise

(Continued from page 41)

Sporn, Vice President and Chief Engineer of the American Gas and Electric Service Corporation of New York. Col. F. W. Scheidenhelm also of New York is the hydraulic consultant on this project. The general contractor is the firm of Rinehart & Dennis Company of Charlottesville, Virginia.

## Interest Increasing in N. C. Mineral Deposits

Mining engineers and syndicates are showing increased interest in North Carolina mineral deposits, especially in several new gold, lead, zinc and silver deposits located in Piedmont and western North Carolina, according to State Geologist H. J. Bryson of the Department of Conservation and Development.

Canadian mining interests are interested in a gold deposit in the Mecklenburg-Gaston areas, and plans are under way for large-scale development of one of these deposits. One Canadian syndicate has some 60,000 tons of ore blocked out on one deposit which assays have shown contains an average of about \$15 in gold per ton. A shaft has already been sunk to a depth of about 350 feet and all that now remains to be done is the installation of a grinding mill in which to grind the ore, and a recovery plant to recover the gold from the pulverized ore. This development should eventually provide work for approximately 300 men, Mr. Bryson believes.

Recent investigations by the state geologist and several mining engineers have revealed at least four deposits of lead and zinc, with some silver, large enough to make their commercial development worth while. One of these is in Montgomery county, two in McDowell and one in Haywood county.

The newly discovered deposits of this ore containing lead, zinc and silver are of unusual interest now because metallurgists have worked out a new and comparatively simple process of separating these rather complex ores, states Mr. Bryson. He believes that the commercial development of one or more of these properties will be started within the near future.



The Most  
Universally Used  
Belt Lacing  
on  
Earth



## GENUINE ALLIGATOR STEEL BELT LACING

TRADE MARK REG. U.S. PAT. OFFICE

Ease of application, "Never Lets Go," the sectional rocker hinge pin, smoothness on both sides, flexibility and separability make genuine Alligator the most universally used Steel Belt Lacing. Clinched teeth prevent ply separation in belt ends. Twelve sizes for flat belts of all types up to 1/2 in. thick. Standard Boxes, Handy Packages and special long lengths. Also made in Monel and alloys. Sold throughout the world.

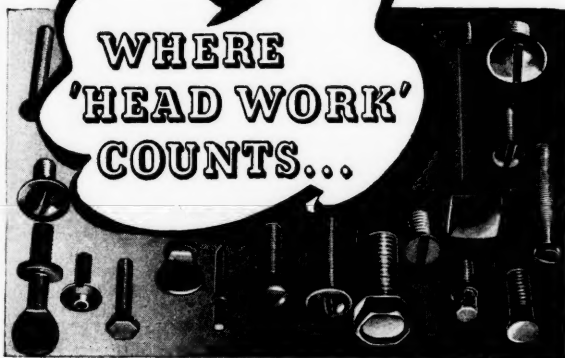
Sole Manufacturers  
**FLEXIBLE STEEL LACING COMPANY**  
4690 Lexington St., Chicago  
In England at 15 Westland  
Place, London, N. 1.



"JUST A  
HAMMER TO  
APPLY IT"

REG. U.S. PAT. OFF.

WHERE  
'HEAD WORK'  
COUNTS...

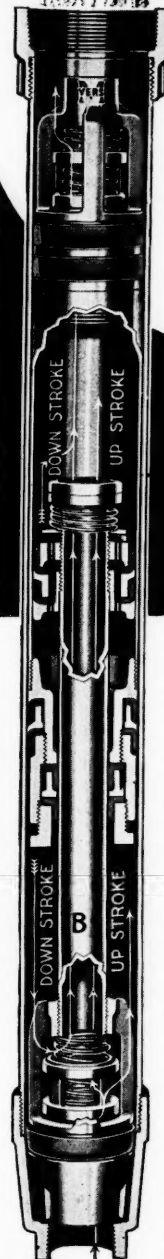


Alert buyers intent on procuring better fastening devices at a saving are discovering that PROGRESSIVE screws and headed parts—formed accurately and economically by the cold upset process—are a considerable factor in keeping production costs down and profits up. You will find it worth while to submit your problems to PROGRESSIVE experts who specialize in made to order items requiring special heads, threads or finishes. Address your inquiry to:



**The PROGRESSIVE MFG CO.**  
TORRINGTON...CONNECTICUT

# A GUSHER of SALES and Satisfaction with MYERS DOUBLE ACTING CYLINDERS



Today Myers brings you the most modern, the most dependable double acting cylinders on the market. There is nothing experimental about them. Designed by experts, built to precision standards, their reputation for dependable and economical service is firmly established in pump circles the country over.

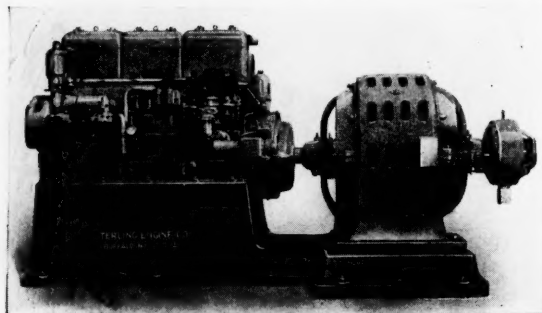
Whether conditions are regular or otherwise, Myers Double Acting Cylinders satisfactorily solve most deep well pumping problems. They furnish the plus volume of water that lowers pumping costs and satisfies the most critical of users.

If you require more water from any source at lower cost than is possible to secure by ordinary methods write us for circular and complete information.

**THE F.E. MYERS & BRO. CO.**  
ASHLAND, OHIO  
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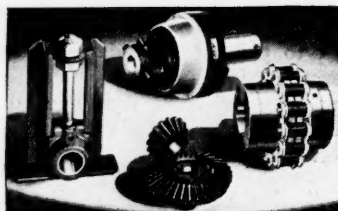
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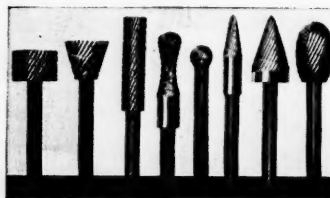
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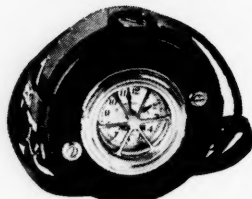


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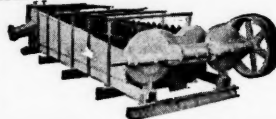
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## Railroads Spend \$86,000,000 A Year in West Virginia

(Continued from page 30)

roads reported purchases in 261 cities and towns in fifty of the fifty-five counties of West Virginia. In 1938, railway orders for coal, materials and supplies were placed with thirty-three firms in Bluefield, twenty-two firms in Huntington, twenty firms in Princeton, eighteen firms in Wheeling, fifteen firms in Morgantown, sixteen firms in Charleston, fourteen firms in Elkins and with hundreds of firms in other cities and towns of West Virginia.

With approximately 25,000 employees residing and working in West Virginia, the railroads rank among the leading employers of labor in the State. This large army of railway workers, scattered throughout the State, received wages totaling \$37,615,703 in 1937. In cities and towns where many railway employees make their homes, the railway payroll is one of the barometers of local business activity.

Property taxes paid by the railroads represent another important railway contribution in West Virginia. In 1937, the railroads paid the State and its local governments \$8,178,000 in taxes. In 1938, their taxes in West Virginia totaled \$8,590,000 or an average of \$2,200 for each mile of railroad in the State. From 1900 to 1938 inclusive, the State of West Virginia and its political subdivisions collected taxes from the railroads totaling \$157,257,000.

Approximately one-half of all railway taxes paid in West Virginia is used to support the public schools. The average cost of education in the State in 1937-8, based upon current expenses and average daily attendance, was \$60.55 per pupil. On this basis, railway taxes allocated to schools in West Virginia were sufficient to defray the cost to the public of educating 70,600 children in the State.

From the foregoing it will be seen that West Virginia has a huge stake in the railroads, not only because of the essential transportation service which they provide, but also because of their contribution to the State's economic life as purchasers of West Virginia products, as employers of West Virginia labor and as supporters of state and local governments and of public schools.

## Heating and Ventilating Exposition

Judging from the types of companies which have already taken space, the Sixth International Heating and Ventilating Exposition, to be held in Cleveland, Ohio, January 22 to 26, 1940, will be representative of all branches of the industry. More than 230 companies have engaged more than two-thirds of the available exhibit space. The Exposition will be held in the Civic Center, under the auspices of American Society of Heating and Ventilating Engineers, and will be under the personal direction of Charles F. Roth, Manager, International Exposition Company, Grand Central Palace, New York.



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## U. S. Exports of Paper and Manufactures Increased in Six Months

United States exports of paper and paper manufactures from January through June of this year were valued at \$13,772,504, representing a 4 per cent increase over shipments in the corresponding period of 1938, according to the Forest Products Division of the Department of Commerce.

Kraft container board was the most

valuable item of the six months' shipments, accounting for \$1,030,022 of the total. Shipments of this commodity were about 50 per cent higher than during the corresponding six months of 1938, it is estimated.

Writing paper exports, second most valuable item exported, totaled \$1,025,247 for the first six months of the year. Shipments of this commodity aggregated 15,209,699 pounds, or 18 per cent more than was shipped in 1938.

Uncoated book paper shipments totaled 13,179,611 pounds, valued at \$753,-

867, an increase in volume of 44 per cent over shipments in the first half of last year. Surface coated paper exports, amounting to 5,440,160 pounds and valued at \$603,429, were 36 per cent higher than the amount shipped in the comparable 1938 period.

Items which registered gains in exports during the first six months of this year, their value, and per cent of increase over 1938 included: newsprint paper, \$182,611, up 28 per cent; tissue and crepe paper, \$548,731, up 10 per cent; paper towels and napkins, \$213,034, up 28 per cent; sheathing and building paper, \$231,105, up 31 per cent; wall-board of paper or pulp, \$402,942, up 105 per cent; blotting paper, \$168,461, up 52 per cent; paper bags, \$492,562, up 8 per cent; shipping containers, boxes and cartons, \$515,881, up 25 per cent; envelopes, \$107,887, up 20 per cent and vulcanized fiber sheets, etc., \$552,144, up 3 per cent.

## Industrial Machinery Exports Up 17 Per Cent

United States exports of industrial machinery in July were valued at \$24,560,369, a gain of 17 per cent over the corresponding shipments in 1938 valued at \$20,948,548, according to the Machinery Division of the Department of Commerce.

The increase was general over the many types, the major increases being recorded, however, in the construction and conveying, and metalworking machinery groups.

As a result of substantial increases in the exports of the major types of construction and conveying machinery, total shipments abroad in this group amounted to \$2,912,134, a 67 per cent gain over the July 1938 shipments valued at \$1,745,007. The Machinery Division reported that overseas consignments of excavators and power shovels were more than double a year ago, \$644,080 against \$303,385, while similar or even larger increases were reported for dredging machinery, \$77,835—\$31,027; cranes, \$284,975—\$94,039; hoists, \$80,435—\$43,716; road graders, \$514,686—\$280,891; conveyors, \$66,750—\$5,411. Smaller gains were recorded in concrete mixers, \$61,104—\$43,149; road rollers, \$66,291—\$52,415; and other road-making equipment, \$481,234—\$326,300.

Showing marked gains in practically all types, the July exports of power-driven metalworking machinery totaled \$9,358,876 compared with \$6,488,415. Shipments abroad of engine lathes were maintained at about the same level as a year ago, \$554,419 against \$555,536, but more than a 100 per cent gain was registered in turret lathes, \$698,572—\$273,520, with a smaller increase in other type lathes, \$317,785—\$252,586.

Other outstanding increases, the Machinery Division pointed out, included vertical boring mills and chucking machines, \$638,737—\$251,506; thread-cutting and automatic screw machines, \$528,345—\$327,499; milling machines, \$1,852,567—\$854,552; vertical drilling machines, \$106,998—\$34,730; planers and shapers, \$382,717—\$293,704; surface grinders, \$283,993—\$155,735; grinding machines, \$1,631,160—\$943,138; and forging machinery and parts, \$301,374—\$53,917.

The exports of metalworking equipment, other than power-driven, were valued at \$340,843 compared with \$338,223 in July 1938.



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